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Graphic Notices and Supplemental Data

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U.S. DEPARTMENT
OF TRANSPORTATION
Federal
Aviation
Administration

GRAPHIC NOTICES AND SUPPLEMENTAL DATA

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NOTICE TO THE EDITOR

The following comments/corrections are submitted concerning the information contained in the paragraph titled ______________________________

on page __________ of the Graphic Notices and Supplemental Data,

dated ____________________.

Name Title (if appropriate) Address

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FOREWORD

Graphics Notices and Supplemental Data is a publication containing aeronautical data, area notices or navigational route information which is supplemental to other operational aeronautical publications and charts. Data contained in this publication is, generally, not subject to frequent change. Data of a more critical nature, such as the tabulation of North American Routes (NAR) or the graphic area notices (i.e., Terminal Radar Service Areas [TRSA] and Terminal Control Areas [TCA]), which may require revision prior to the next scheduled printing of this publication, will be revised in the publication *Notices to Airmen (Class II)*. These revisions will appear only once, so users are advised to tear them out of the *Notices to Airmen* and insert them in this publication until the next issue. *Graphic Notices and Supplemental Data* is a quarterly publication and is available through subscription from the Superintendent of Documents.

Graphic Notices and Supplemental Data also serves as the section RAC–9 in the *United States Aeronautical Information Publication*. The US AIP, issued in one volume, is the basic aeronautical information document published for international use and contains information of a lasting character, essential to international air navigation. It is available in English only and is maintained on a current basis by quarterly amendment service consisting of a checklist, reprinted pages and, in the case of minor amendments, manuscript corrections. This publication is a loose leaf publication made to fit a standard three ring binder. Subscriptions are available through the Superintendent of Documents. A subscription will consist of the basic issue (dated January, 1979) and seven amendments, as they are published. The next basic issue will be in January of 1981.

This manual is complementary to other publications which are available upon separate subscription. These publications are:

Airmen's Information Manual (Basic Flight Information and ATC Procedures)—A publication containing the basic fundamentals required in order to fly in the U.S. NAS. It also contains items of interest to pilots concerning health and medical facts, factors affecting flight safety, a pilot/controller glossary of terms used in the Air Traffic Control System, and information on safety, accident and hazard reporting.

Notices to Airmen (Class-II)—A publication containing current Notices to Airmen (NOTAMs) which are considered essential to the safety of flight as well as supplemental data affecting the other operational publications listed here. It also includes current FDC NOTAMs, which are regulatory in nature, issued to establish restrictions to flight or amend charts or published Instrument Approach Procedures. This publication is issued every 14 days and is available through subscription from the Superintendent of Documents.

Airport/Facility Directory, Alaska Supplement, Pacific Supplement—These publications contain information on airports, communications, navigational aids, instrument landing systems, VOR receiver check points, preferred routes, FSS/Weather Service telephone numbers, Air Route Traffic Control Center (ARTCC) frequencies, part-time control zones, and various other pertinent, special notices essential to air navigation. These publications are available upon subscription from the National Ocean Survey (NOS), Distribution Division (C–44), Riverdale, Maryland 20840.

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration is responsible for insuring the safe and efficient use of the Nation's airspace, by military as well as civil aviation, for fostering civil aeronautics and air commerce in the United States and abroad, and for supporting the requirements of national defense.

The activities required to carry out these responsibilities include: safety regulation; airspace management and the establishment, operation, and maintenance of a civil-military common system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the agency under one particular situation or another may or may not furnish information does not serve as a precedent of the agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Administration to furnish information only when, in the opinion of the agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

TABLE OF CONTENTS

	Page
Area Advisories	ADZY-1
Area Navigation (RNAV) Routes	RNAV-1
Civil Flight Test Areas	CIV-1
National Weather Service (Upper Air Observing Stations)	NWS-1
North Atlantic Minimum Navigation Requirements	NAT-1
North Atlantic Standardized Air/Ground Messages	NAT-4
North American Routes for North Atlantic Traffic (NAR)	NAT-5
Parachute Jumping Areas	PAJA-1
Terminal Area Graphics (listed alphabetically)	TERM-1
Terminal Radar Service Area Graphics (TRSA) (listed alphabetically)	TRSA-1

AREA ADVISORIES

THE FOLLOWING ADVISORIES CONTAIN AERONAUTICAL INFORMATION THAT DOES NOT CONCERN A SPECIFIC AIRPORT OR NAVAID, OR FAILS, FOR SOME OTHER REASON, TO MEET THE CRITERIA FOR INCLUSION INTO OTHER PERMANENT BASE LINE PUBLICATIONS SUCH AS THE *AIRPORT/FACILITY DIRECTORY*. SUCH INFORMATION WILL BE AUTOMATICALLY TRANSFERRED TO THIS PUBLICATION FROM THE *NOTICES TO AIRMEN* (CLASS II) PUBLICATION WHEN THE ORIGINATOR INDICATES THAT THE ADVISORY IS EITHER PERMANENT OR EXPECTED TO REMAIN CURRENT LONG ENOUGH TO WARRANT PUBLICATION HERE. THESE ADVISORIES ARE GROUPED UNDER STATE HEADINGS, AND, WHERE APPROPRIATE, UNDER CITY OR GEOGRAPHIC LOCATIONS. ADVISORIES THAT PERTAIN TO MORE THAN ONE STATE OR REQUIRE A FULL PRINTED PAGE WILL BE INCLUDED UNDER THE *GENERAL* HEADING. THE NUMBER IN PARENTHESIS FOLLOWING EACH ENTRY IS THE MONTH AND YEAR THAT THE ADVISORY WAS ISSUED.

ARIZONA

THE GRAND CANYON CAVERNS AREA: Quarry located 3 miles west-southwest of Grand Canyon Caverns Landing Strip. Aircraft are cautioned to avoid this area during daylight hours, if necessary to fly over the area maintain a minimum altitude of 4000 feet AGL due to possible damage from flying rocks or turbulence caused by blasting. (3/78)

GRAND CANYON AND PETRIFIED FOREST NATIONAL PARKS: All pilots are requested to avoid flying below the canyon rim and to maintain a distance 1500 feet above and horizontally from all scenic overlooks, parks, and trails. (10/74)

CALIFORNIA

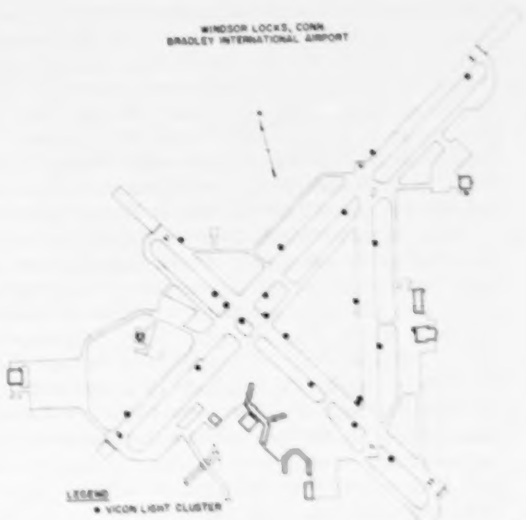
SALINAS RIVER AND OCEAN SHORELINE: Avoid flying below 1000 feet over a 400 acre Wildlife Refuge along the south side of the mouth of the Salinas River and ocean shoreline eastward. (1/76)

CONNECTICUT

BRADLEY INTERNATIONAL AIRPORT: Visual confirmation of voice takeoff clearance (VICON) test. During the period between August 1979 through March 1980, an operational evaluation will be conducted at the Bradley International Airport, of an experimental light system which is intended to enhance safety by providing a second stimulus (visual) which is used to "CONFIRM" the voice takeoff clearance. The non-standard light system is installed at all departure points on all runways of the Bradley International Airport.

VISUAL CONFIRMATION OF VOICE TAKEOFF CLEARANCE

VICON



The system is to "CONFIRM" the voice takeoff clearance by a pulsating green light which will be turned on or activated by the control tower operator at the time takeoff clearance is issued. The lights are located so that they will always be found in the front left quarter, as viewed by the pilot, from the aircraft when in takeoff position on the runway. The lights, a cluster of three lamps, will be visible from the runup pad, when near the runway, and when lined up on the active runway.

AREA ADVISORIES

The VICON confirmation lights are turned off automatically by electronic devices. At all intersections and the ends of runway 01 and 19, the electronic device will be a timer. The timing may be varied during the testing period. At departure points where the timer devices are utilized, the lights may turn off prior to the start of the takeoff roll or prior to passing the VICON light. The light going out, *does not* indicate your takeoff clearance has been cancelled, only the voice instruction from the control tower will cancel the takeoff clearance.

DISTRICT OF COLUMBIA

WASHINGTON NATIONAL ARPT: Turbojet policy except under emergency conditions and subject to observance of noise abatement procedures, only those turbojet aircraft meeting the following criteria can be accommodated: A. Approved types of turbojet aircraft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operation, (2) Air carrier (including supplemental air carriers) and commercial operator training charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Saulnier 760 (4) Jet Commander (Aero Commander) (5) Learjet (6) Hawker Siddley DH-125 (7) Hansa Jet HFB 320 (8) Fan Jet Falcon (9) Caravelle (10) DC-9 series 10, 30 and 50 (11) BAC-111 (12) Boeing 727 series thru 200 approved under controlled conditions, (13) Boeing 737 series 100 and 200 (14) Gulfstream II (15) Cessna Model 500 Citation. C. Turbojet aircraft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet aircraft described in paragraph B (9) through (13) may not be operated into or out of airport on a flight segment of more than 650 statute miles except for non stop flights of less than 1000 miles operating to or from the following cities: Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla. Runway 15 available all jet takeoffs. No runup in position prior to takeoff. Rolling takeoffs only. In the interest of noise abatement, all non-scheduled turbojet operators are requested not to land at or takeoff from Washington National Airport 2300-0700 local time. (10/74)

WASHINGTON ARTCC: Enroute radar service, VFR advisory service and merging target service below 10000 feet MSL available only to transponder equipped aircraft in Roanoke, Lynchburg, Charlottesville, Danville and Elkins. (2/78)

WASHINGTON NATIONAL ARPT: Lead-in light system located at upstream side center of Memorial Bridge angler to intercept altitude of 900 feet MSL over Key Bridge. (8/78)

WASHINGTON NATIONAL ATCT: LOCAL FLOW TRAFFIC MANAGEMENT—TURBOJET ARRIVALS: Washington National Tower, in conjunction with the Washington ARTCC, has implemented a metering plan designed to minimize low altitude holding, reduce radar vectors at speeds requiring the extension of flaps and to provide for an orderly flow of traffic to the final approach course. Dependent upon the airport acceptance rate, in-trail spacing between successive arrivals may necessitate using speed adjustments prior to reaching the Washington Terminal Area. Descent, under most conditions, will be from arrival fixes established 30 to 36 miles from the runway end. Advance notice as to where to expect descent and when to expect base leg should be given. It is imperative that pilots control their descent at a uniform rate to preclude intermediate altitude restrictions. (Procedures are based on a near idle thrust, 300 feet per mile descent in still air conditions.) (11/78)

FLORIDA

MIAMI: Balloon flights will be made to 1500 feet AGL sunrise-sunset in an area 5 miles north of the Miami VORTAC, about 6 miles south/southwest of the intersection of US highway and State highway 84. (3/78)

GEORGIA

ATLANTA TOWER SPECIAL NOTICE: Low altitude airway structure in proximity of the William B. Hartsfield Atlanta International Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid Heavy Concentration of high performance and wide-bodied aircraft, pilots should file airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local time. (6/78)

ILLINOIS

CHICAGO, O'HARE INTL ARPT: Surface wind information provided by O'Hare Tower directly to landing aircraft, for all runways except 18-36, will be derived from wind sensor equipment near each runway threshold rather than from the centerfield wind sensor equipment; except that the center field source will be used during outages of threshold sensors. Surface wind information in weather reports, ATIS broadcasts and given directly to departing aircraft will continue to be from the centerfield source.

CHICAGO/WEST CHICAGO, DUPAGE COUNTY ARPT: Traffic advisory, high volume of concentrated VFR traffic west of airport; aircraft approaching this area should be alert for north-south VFR traffic circumnavigating O'Hare TCA and not in radio contact with Dupage tower or Chicago ARTCC. (9/78)

AREA ADVISORIES

KENTUCKY

COVINGTON GREATER CINCINNATI ARPT: Runway Alignment Indicator System Experimental (RAISE) located extended center line runway 18, 8630 feet north of threshold. System appears as an inverted T with 5 light stations forming the cross of the T, and 2 additional light stations forming the leg of the T. All lights are red and system operates in steady burning mode. Minimum crossing height 1300 feet MSL for visual approaches from north. ILS Glide Path altitude is 1300 feet MSL over RAISE. (10/4)

MAINE

MOSCOW/CARATUNK, SOMERSET COUNTY: The U.S. Air Force will be operating an experimental radar system transmitter located at latitude 45°10′25″N 69°51′40″ West on an intermittent basis (approximately 40 hours per week) until June 1981. The transmitter will be operating on FM/CW frequencies between 6.75–21.85 mhz. The transmitted energy will create an area hazardous to aircraft carrying electro-explosive devices. The area will also be hazardous to airborne high frequency radios. All aircraft are cautioned to avoid the area within 2 nautical miles radius of the antenna site below an altitude of 6500 feet MSL. Aircraft, in particular, should avoid penetrating the airspace beginning at the antenna site and extending 1 mile along the boresite of 46.5 degrees true at an altitude of 5000 feet and below within ½ mile of either side of the boresite. (1/80)

MASSACHUSETTS

SPECIAL NOTICE: Weather warning signs installed airport ramp areas at number Cape Cod and bordering Island locations. Signs function with associated flashing lights during periods where IFR or other hazardous weather is current or forecast. Sign and light system operations at Chatham, Martha's Vineyard, Hyannis, New Bedford, Plymouth, and Nantucket during hours airport attended or tower open.

BOURNE: Acft operating below 2000 ft and within 3 miles of Pave Paws radar site located in Restricted Area 4101 may experience momentary erratic operation of cockpit instruments or navigational equipment. Pilots are encouraged to submit reports of such occurrences to nearest FAA Air Traffic Facility. (5/79)

MINNESOTA

HIBBING: Extensive open pit mine blasting operations being conducted from 12 nautical miles southwest to 48 northeast of Hibbing. Possible debris to 4000 feet. Contact Hibbing FSS for blasting schedule. (5/76)

NEW JERSEY

NEW YORK ARTCC: The New York Air Route Traffic Control Center, in concert with the Philadelphia, Atlantic City and McGuire AFB Approach Control Facilities, has developed restricted airspace procedures in support of an intensive RCA/US Navy test program. The area concerned is east of a line from SBY (Salsbury VOR) to PNE (North Philadelphia) VOR and south of line from the PNE VOR to the MANTA intersection on V139 and primarily in the vicinity of ACY (Atlantic City, NJ), McGuire AFB, NAS Lakehurst, and Philadelphia. The Program will continue for an extended period. Discrete times and altitudes will be used in the flying test profiles to have as little impact as possible on normal traffic flow. Appropriate daily NOTAMs will be issued concerning airspace restrictions. Some slight delays to IFR traffic may be encountered. New York Center Flow Control Printer Information will also be issued with restrictions if necessary, however, delays if any will be kept to the minimum. (8/78)

NEW MEXICO

FARMINGTON: Blasting daily 0900–1700 between the Farmington VOR 120 degree to the 330 degree radials beyond 10 DME miles. Caution should be exercised if operating below 500 feet AGL near drag lines or drilling rigs. (6/78)

OREGON

BIRD HAZARDS: Heavy concentration of migratory and wintering flocks of large waterfowl throughout central Oregon from the Washington to California borders annually November to May. Caution advised at all airports or while transiting area.

TEXAS

SAN ANTONIO: April to October large concentrations of bats are observed in the vicinity of Bracken Cave located 5.5 miles east of SAT VORTAC. Most activity is observed near sunset and sunrise at altitudes up to 10000 feet

UTAH

BINGHAM CANYON: Unmarked cables and pole lines suspended across canyon and in vicinity of the open pit mine. (10/74)

FLAMING GORGE DAM SITE: Cables and power lines suspended from 2 towers on west side to one tower on east side of canyon across Green River approximately 100 feet higher than canyon rim. (10/74)

AREA ADVISORIES

WASHINGTON

ARLINGTON ARPT: Unmarked/unlighted horizontal and vertical cables blocking canyon from 3217 feet MSL to canyon floor located 10 nautical miles east northeast airport. Six structures on each side of canyon are marked and lighted. (9/77)

COLUMBIA RIVER BASIN: Bird Hazard—Heavy concentration of migratory and wintering flocks of large waterfowl throughout the Columbia River Basin from the Canadian to Oregon borders annually November to May. Caution advised to all airports or while transiting area.

HANFORD: Numerous unmarked/unlighted tall structures located within 12 nautical miles of radius of Hanford, Washington. Pilots are advised to maintain at least 1000 feet above surface in this area. (11/77)

WISHRAM: Unmarked powerlines from north shore of Columbia River to Millers Island 2 nautical miles east of Wishram Washington, 250 feet above the water 712 feet MSL. (2/78)

WYOMING

SHERIDAN: Coal mine blasting surface to 1000 feet AGL 27 nautical miles northeast of Sheridan. Blasting will continue indefinitely. (10/74)

YELLOWSTONE NATIONAL PARKS: Due to increasing low level flights over national parks, pilots are requested to maintain 2000 feet AGL when transiting Yellowstone National Parks. (9/72)

AREA NAVIGATION ROUTES (RNAV)

Area navigation systems permit navigation via a selected course to a predefined point without having to fly directly toward or away from a navigational aid. Typical of such systems are doppler radar, inertial and course line computers.

Introduction of the area navigation capability into the National Airspace System provides a means of overcoming many of the constraints of the VOR system. Elimination of the requirement to fly along radials that lead directly to or from the ground station makes it possible to design routes and procedures that better facilitate the movement of traffic.

Guidelines for the implementation of area navigation within the National Airspace System were issued in the form of Advisory Circular 90-45A on 2 February 1975. Advisory Circular 90-45A contains standards and methods for obtaining approval for use of area navigation equipment in IFR operations. It also contains air traffic control procedures applicable to approved area navigation equipment.

Since the VOR system forms the basis for the existing airway and air traffic control systems, area navigation route definitions and air traffic control clearances will be in terms of, and referenced to, VOR ground stations. However, latitude/longitude descriptions of fixes forming area navigation routes are provided to facilitate the use of airborne systems that are not dependent on VOR input signals.

Area navigation routes are numbered in a manner similar to VOR airways and jet routes. The suffix "R" identifies the route as an area navigation route. When filing an IFR flight plan containing an area navigation route, the route number may be filed in the same manner as a VOR airway number. The filed route should clearly define the intended route during transition from the VOR structure to the area navigation structure.

Area navigation route numbering will be as follows:

(1) Series 700 (low) and 800, 900 (high) routes—Routes designated in Parts 71 and 75. Routes expected to be in frequent use by more than one user and published on appropriate U.S. Government Charts. MEAs will be published in FAR 95.

(2) Series 500 (low) and 600 (high) routes—Routes published in the Graphic Notices and Supplemental Data. Routes planned for more than one user but their expected usage does not justify Government charting. MEA's when not published in FAR 95 and the Graphic Notices and Supplemental Data, will be provided by ATC.

(3) Series 300 (low) and 400 (high) routes—Routes established primarily for one user. Not carried on Government charts. MEAs will be periodically published in the listing of non-95 routes.

The routes contained herein are those of the 500 and 600 Series.

Each area navigation route listed is based on a centerline which extends between fixes, described by reference to VOR/DME, called waypoints, specified for that route. Each waypoint is listed by geographical name, followed by the VOR/DME fix description in the format: VOR STATION RADIAL/DME MILEAGE (example POM 033/010). Also included are the track to be flown (Mag track), the VOR changeover point (COP, with "MP" indicating Midpoint) the distance (DIST) between waypoints, and the latitude/longitude description.

HIGH ALTITUDE AREA NAVIGATION ROUTE (UNCHARTED)

J620R

Hemlo (Pacific Ocean) to Dayah, Oregon

WAYPOINT NAME	DESCRIPTION VOR/DME	GEOGRAPHICAL COORDINATES
Hemlo	ONP 216.0/137.0	43°18'08'',126°40'49''
MAG TRACK: 047.4/229.8		DIST: 158
COP: NOT REQUIRED		MEA: 18000
		MAA: 45000
Eugene	ONP 105.8/45.2	44°07'16'',123°13'18''
MAG TRACK: 056.2/237.7		DIST: 95
MAG TRACK: 059.1/240.2		DIST: 70
COP: 95 E EUGENE		MEA: 18000
		MAA: 45000
Dayah	PDT 178.3/69.4	44°33'58'',119°26'45''

SPECIAL OPERATIONS

CIVIL FLIGHT TEST AREAS

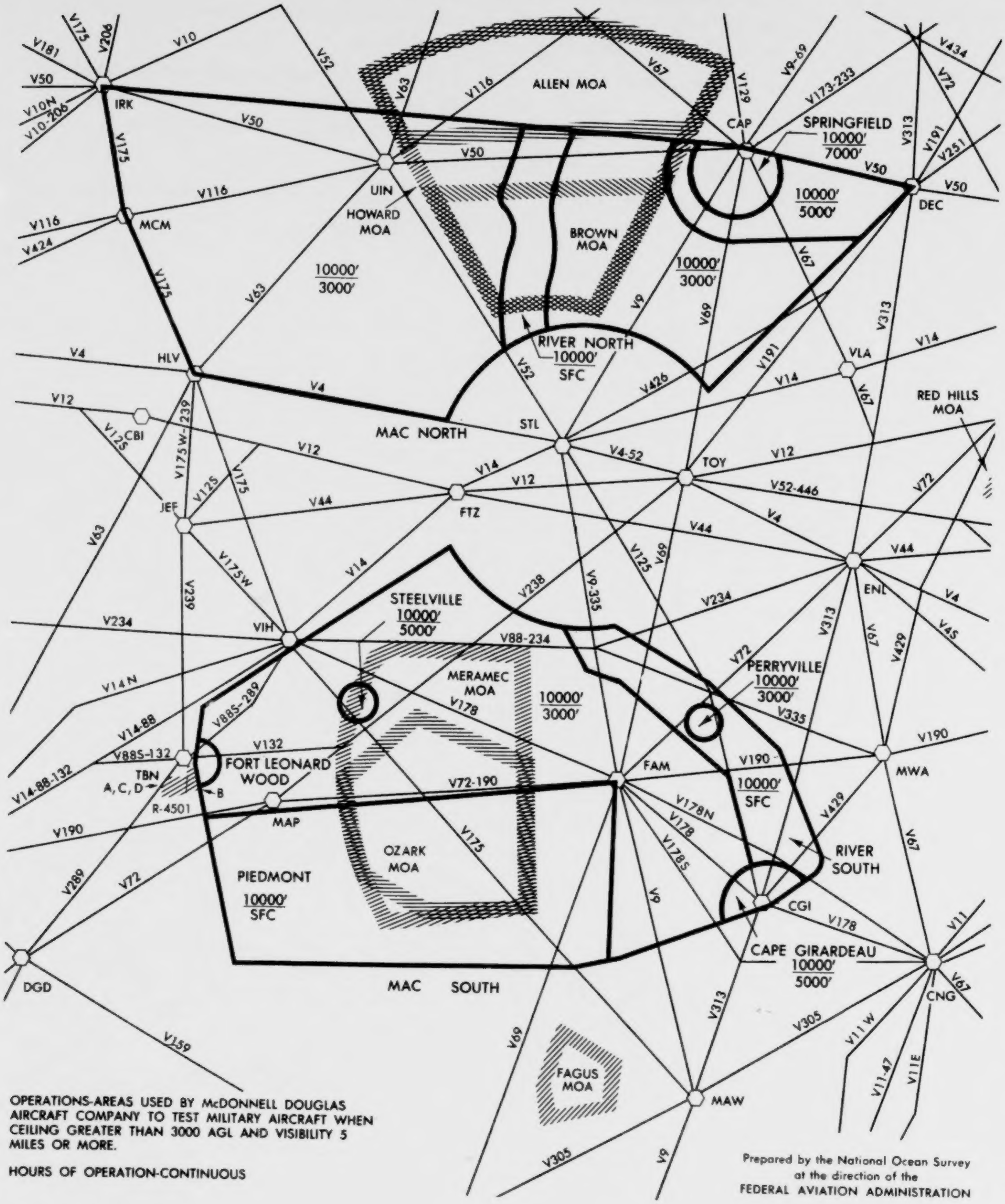
The graphics on the following pages depict areas that have been designated as flight test areas for civil aircraft manufacturers. These flight tests shall be conducted under the following conditions.

Operations—Conducted by military jet type aircraft at indicated airspeeds above 250 knots when ceiling greater than 3,000 feet AGL and visibility five (5) miles or more.

Altitudes—10,000 feet to surface.

Hours of Operations—Check graphics or Flight Service Station for hours of operation.

MCDONNELL AIRCRAFT COMPANY
MCAIR LOW ALTITUDE FLYING AREAS


ALLEN MOA
HOWARD MOA
BROWN MOA
SPRINGFIELD 10000′ 7000′
10000′ 5000′
10000′ 3000′
10000′ 3000′
RIVER NORTH 10000′ SFC
MAC NORTH
RED HILLS MOA
STEELVILLE 10000′ 5000′
MERAMEC MOA
10000′ 3000′
PERRYVILLE 10000′ 3000′
FORT LEONARD WOOD
TBN
A, C, D
B
R-4501
OZARK MOA
PIEDMONT 10000′ SFC
10000′ SFC
RIVER SOUTH
CAPE GIRARDEAU 10000′ 5000′
MAC SOUTH
FAGUS MOA
IRK
UIN
CAP
DEC
MCM
HLV
CBI
STL
TOY
JEF
FTZ
ENL
VLA
VIH
FAM
MWA
MAP
CGI
CNG
DGD
MAW
V10
V173
V206
V181
V50
V10N
V10-206
V175
V116
V424
V52
V63
V67
V129
V9-69
V173-233
V434
V72
V313
V191
V251
V4
V12
V125
V175W-239
V426
V14
V4-52
V52-446
V44
V239
V175W
V238
V9-335
V69
V234
V45
V429
V88-234
V14N
V14-88
V88S-132
V14-88-132
V88S-289
V132
V178
V335
V190
V72-190
V178N
V178S
V289
V9
V11
V11W
V11-47
V11E
V305
V159

OPERATIONS-AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION-CONTINUOUS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

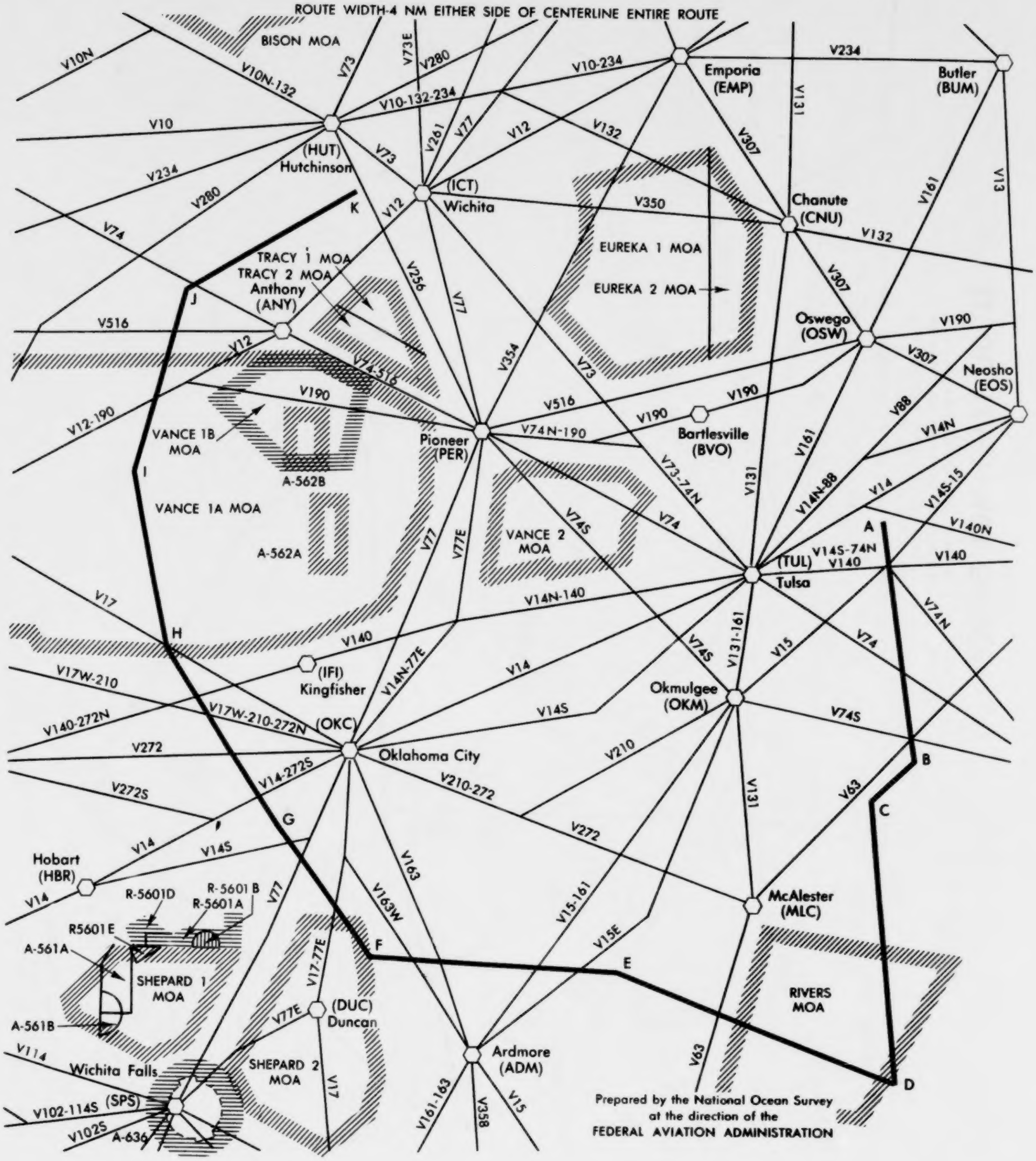
19 APR 1979

BOEING LOW LEVEL ROUTE #1

HOURS OF OPERATION-CONTINUOUS

OPERATIONS-CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH-4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE


BISON MOA
V10N
V10N-132
V73
V73E
V280
V10-234
Emporia
(EMP)
V234
Butler
(BUM)
V10
V10-132-234
(HUT)
Hutchinson
V234
V280
V74
V73
V261
V77
V12
V132
V131
V307
V161
V13
K
V12
(ICT)
Wichita
V350
Chanute
(CNU)
V132
EUREKA 1 MOA
EUREKA 2 MOA
TRACY 1 MOA
TRACY 2 MOA
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V12
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Bartlesville
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V140
V17
V14N-140
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Kingfisher
V14N-77E
V14
V74S
V131-161
V15
V74
V17W-210
V140-272N
V17W-210-272N
(OKC)
V14S
Okmulgee
(OKM)
V74S
V272
Oklahoma City
V210
B
V272S
V14-272S
V210-272
V131
V63
C
G
V14
V14S
V272
Hobart
(HBR)
V163
V163W
V15-161
V14
R-5601D
R-5601 B
R-5601A
V77
McAlester
(MLC)
R5601 E
A-561A
V17-77E
F
V15E
E
SHEPARD 1
MOA
RIVERS
MOA
A-561B
V77E
(DUC)
Duncan
V114
Wichita Falls
SHEPARD 2
MOA
V17
Ardmore
(ADM)
V63
D
V102-114S
(SPS)
V102S
A-636
V161-163
V358
V15

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

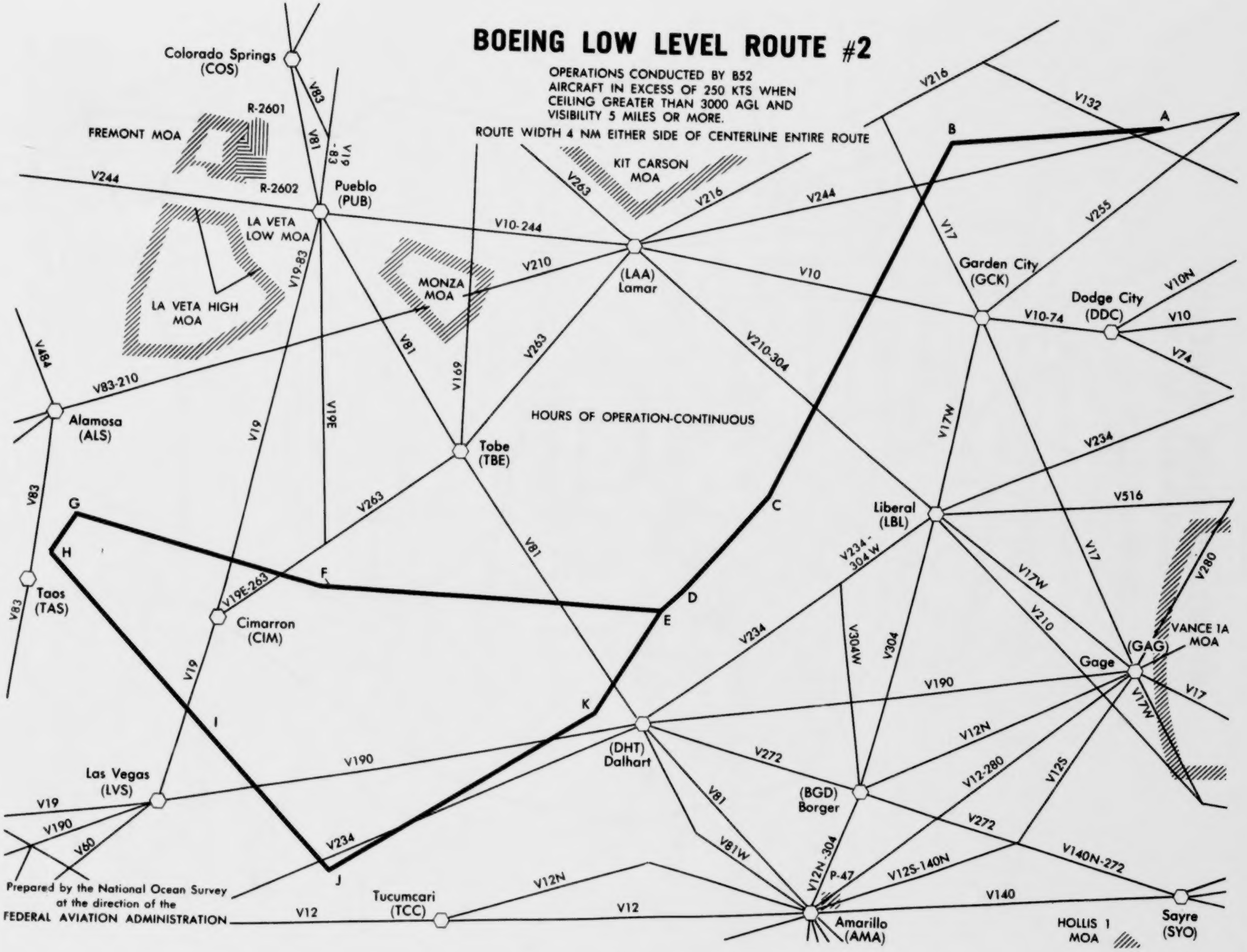
19 APR 1979

BOEING LOW LEVEL ROUTE #2

OPERATIONS CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH 4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE

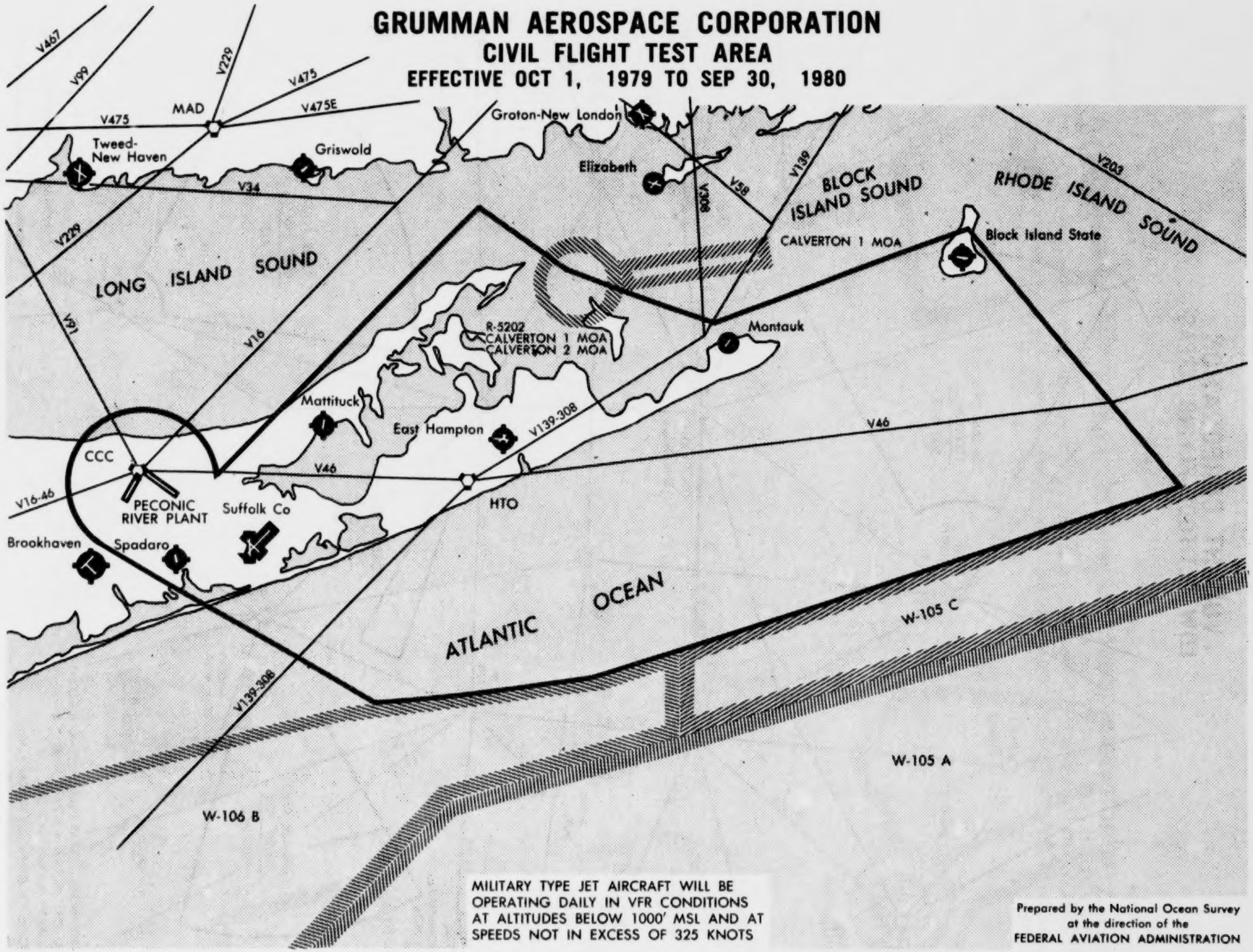
HOURS OF OPERATION-CONTINUOUS


A
B
C
D
E
F
G
H
I
J
K
Colorado Springs (COS)
Pueblo (PUB)
(LAA) Lamar
Garden City (GCK)
Dodge City (DDC)
Alamosa (ALS)
Tobe (TBE)
Liberal (LBL)
Taos (TAS)
Cimarron (CIM)
Gage (GAG)
Las Vegas (LVS)
(DHT) Dalhart
(BGD) Borger
Tucumcari (TCC)
Amarillo (AMA)
Sayre (SYO)
FREMONT MOA
R-2601
R-2602
LA VETA LOW MOA
LA VETA HIGH MOA
MONZA MOA
KIT CARSON MOA
VANCE 1A MOA
HOLLIS 1 MOA
P-47
V83
V81
V19 -83
V244
V10-244
V19-83
V210
V263
V216
V132
V255
V17
V10
V10N
V10-74
V74
V83-210
V484
V81
V169
V19E
V19
V210-304
V17W
V234
V516
V280
V19E-263
V234 - 304 W
V304W
V304
V210
V190
V12N
V12-280
V125
V272
V140N-272
V140
V12S-140N
V12N-304
V81W
V12
V60

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

GRUMMAN AEROSPACE CORPORATION
CIVIL FLIGHT TEST AREA
EFFECTIVE OCT 1, 1979 TO SEP 30, 1980

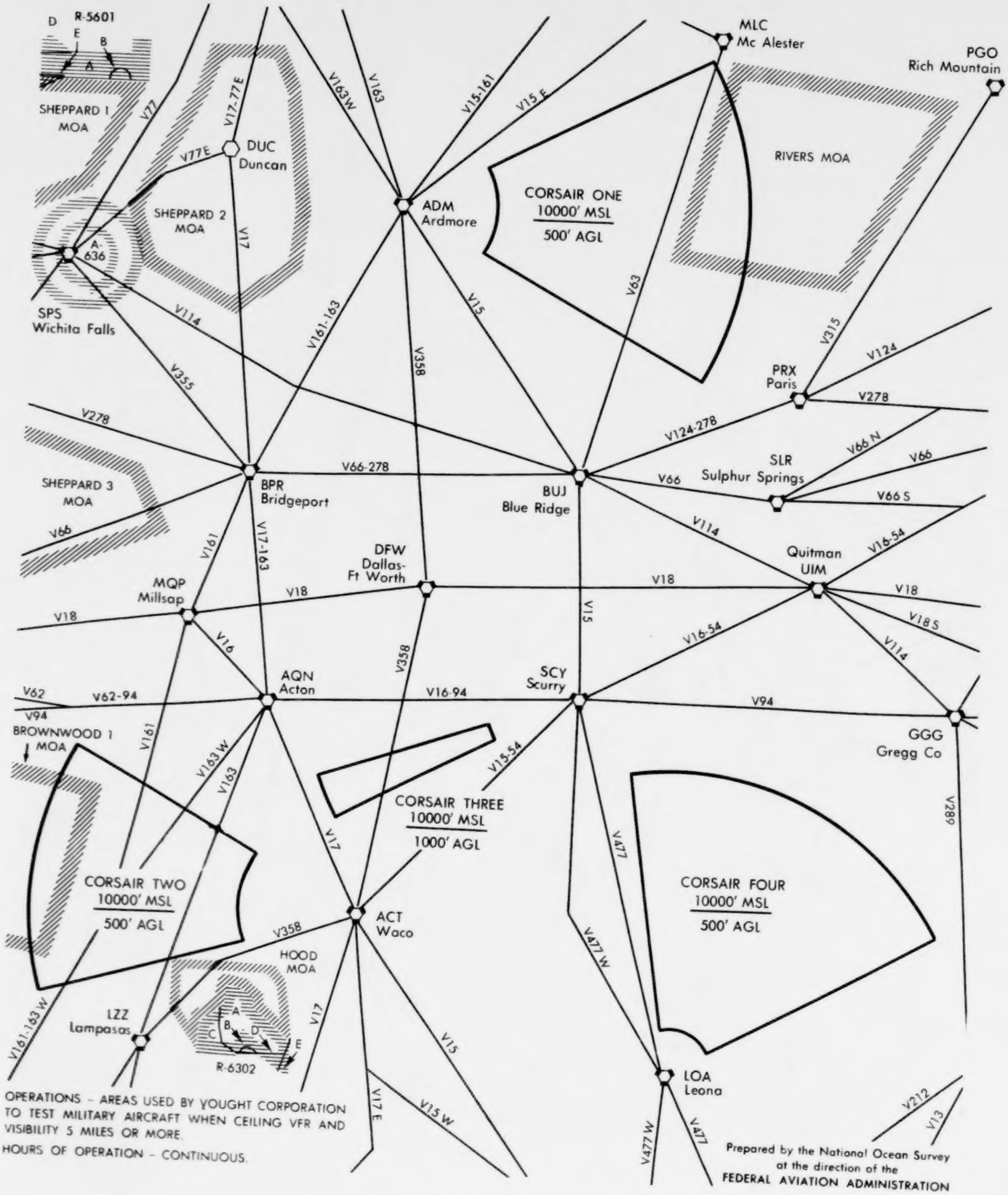

V467
V99
V229
V475
V475E
MAD
Tweed-New Haven
Griswold
V34
Groton-New London
Elizabeth
V308
V58
V139
BLOCK ISLAND SOUND
RHODE ISLAND SOUND
V203
CALVERTON 1 MOA
Block Island State
LONG ISLAND SOUND
V229
V91
V16
R-5202
CALVERTON 1 MOA
CALVERTON 2 MOA
Montauk
Mattituck
East Hampton
V139-308
V46
V46
CCC
V16-46
PECONIC RIVER PLANT
Suffolk Co
HTO
Brookhaven
Spadaro
ATLANTIC OCEAN
W-105 C
V139-308
W-105 A
W-106 B

MILITARY TYPE JET AIRCRAFT WILL BE
OPERATING DAILY IN VFR CONDITIONS
AT ALTITUDES BELOW 1000' MSL AND AT
SPEEDS NOT IN EXCESS OF 325 KNOTS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

5 NOV 1979

VOUGHT CORPORATION
LOW ALTITUDE FLYING AREAS


D
R-5601
E
B
A
SHEPPARD 1 MOA
V77
V17-77E
V77E
DUC
Duncan
SHEPPARD 2 MOA
V17
A-636
SPS
Wichita Falls
V163W
V163
ADM
Ardmore
V15-161
V15 E
MLC
Mc Alester
PGO
Rich Mountain
CORSAIR ONE
10000' MSL
500' AGL
RIVERS MOA
V63
V114
V355
V161-163
V358
V15
V315
V124
PRX
Paris
V278
V124-278
SLR
Sulphur Springs
V66 N
V66
V66 S
SHEPPARD 3 MOA
V66
BPR
Bridgeport
V66-278
BUJ
Blue Ridge
V66
V114
Quitman
UIM
V16-54
V161
V17-163
DFW
Dallas-Ft Worth
MQP
Millsap
V18
V18
V18
V18
V18 S
V16
V15
V16-54
V114
AQN
Acton
SCY
Scurry
V62
V62-94
V16-94
V94
V94
GGG
Gregg Co
BROWNWOOD 1 MOA
V161
V163 W
V163
V358
V15-54
CORSAIR THREE
10000' MSL
1000' AGL
V17
V289
V477
CORSAIR TWO
10000' MSL
500' AGL
CORSAIR FOUR
10000' MSL
500' AGL
ACT
Waco
V358
HOOD MOA
V477 W
V161-163 W
LZZ
Lampasas
A
B
C
D
E
R-6302
V17
V15
LOA
Leona
V17 E
V15 W
V477 W
V477
V212
V13

OPERATIONS – AREAS USED BY VOUGHT CORPORATION TO TEST MILITARY AIRCRAFT WHEN CEILING VFR AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION – CONTINUOUS.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

NATIONAL WEATHER SERVICE UPPER AIR OBSERVING STATIONS

The map depicting National Weather Service Upper Air Observing Stations will no longer be carried in this publication. Please consult the latest Airport/Facility Directory for identification of current Upper Air Observing Stations.

NORTH ATLANTIC MINIMUM NAVIGATION REQUIREMENTS

The concept of minimum Navigation Performance Specifications (MNPS) has been adopted on a world-wide basis by the International Civil Aviation Organization (ICAO). MNPS has the objective of ensuring both safe separation of aircraft and also to enable operators to derive maximum economic benefit from the improvement in accuracy of navigation equipment which has been demonstrated in recent years. An implicit condition of MNPS is that all operators must maintain the specified operating standards and be aware of the inherent obligations of the MNPS requirements. The MNPS concept will be implemented on a regional basis. Certain areas of the North Atlantic (NAT) region have introduced the MNPS concept. These areas are known as NAT MNPS airspace and include the following defined airspace boundaries:

(a) between FL275 and FL400;
(b) between latitudes 27°N and 67°N;
(c) in the East – the Eastern boundaries of CTAs Santa Maria Oceanic, Shanwick Oceanic and Reykjavik;
(d) in the West – the Western boundaries of CTAs Reykjavik and Gander Oceanic and New York Oceanic East of longitude 60°W.

Aircraft used to conduct flights within the volume of aircspace specified shall have navigation performance capability such that:

(a) the standard deviation of lateral track errors shall be less than 6.3 NM (11.7 Km);

Note: As a considerable simplification, the above can be interpreted as a need for aircraft to stay within 12.6 NM (23.4 Km) of track for about 95% of the time.

(b) the proportion of the total flight time spent by aircraft 30 NM (55.6 Km) or more off the cleared track shall be less than $5.3x10^{-4}$ (i.e., less than 1 hour in about 2000 flight hours).

(c) the proportion of the total flight time spent by aircraft between 50 and 70 NM (92.6 and 129.6 Km) off the cleared track shall be less than $13x10^{-5}$ (i.e., less than 1 hour in about 8000 flight hours).

Such navigation performance capability shall be verified by the State of registry or the State of the aircraft operator as appropriate. Guidance material of use to those involved in the initial achievement and continued maintenance of the navigation capability set forth above has been issued by ICAO under the title "Guidance Material related to Air Navigation in the NAT Region" and will be supplemented and updated as required and as new material becomes available.

Flights entering MNPS airspace during any portion of their flight must enter the letter "X" after the letter "S" in item 10 of the ICAO flight plan to indicate that the flight has been certified as complying with MNPS.

Aircraft incapable of meeting MNPS in MNPS airspace will be given special consideration only in a very limited number of justified cases. Such consideration will require advance coordination between the requesting operator and the appropriate ATC authorities. The decision as to whether to allow such operations and, if so, the best method of operation will be made by the ATC authorities concerned with that airspace. The decision will be based upon the nature of the operation, the navigation capability of the aircraft, and the amount of air traffic forecast for the proposed time of operation. Final routing and/or handling or any such approved special arrangements will be in a manner that will not interfere with or impose a burden upon aircraft complying with MNPS.

The FAA has published Advisory Circular 91–49 offering a means of obtaining authorization to operate within NAT/MNPS airspace for operations conducted under FAR Part 91 and FAR Part 135. Advisory Circular 120–33 contains guidance for acquiring authorization to operate in NAT/MNPS airspace under FAR's 121, 123 and 135.2. Civil operators contemplating use of Loran C in MNPS airspace are advised to follow the MNPS certification process outlined in the appropriate advisory circular.

A. MONITORING OF NAVIGATION ACCURACIES

1. The data from which MNPS was calculated was derived from previous routine and special data collections involving radar observations and monitoring of equipment performance. In order to ensure that the MNPS are being met it is necessary to monitor the tracking accuracy of aircraft using the ATC radars which cover the exits from the oceanic airspace. The frequency of occurrence of the larger track deviations will be used as a measure of compliance with the second and third parameters of the specification. In cases of individual large errors, the pilot of the aircraft concerned will normally be notified by the ATC unit observing the error. The subsequent investigation may be carried out by the operator and its State of Registry after notification by the authority providing ATC service. If there is a serious increase in the number of large errors, it may become necessary to increase separation standards until remedial action has been determined. Alternatively if, rapid corrective action cannot be achieved, it may be necessary for the State of Registry or the State of the aircraft operator to temporarily exclude offending types of aircraft, or operators, from the "MNPS airspace."

2. An operator with MNPS approval who experiences a partial loss of navigation capability prior to entry in MNPS airspace should consider the following routes:

(a) STN/BEN-60N 10W-61N 1234W-LIMA-KF
(b) BEL-57N 10W-60N 15W-61N 1630W-MIKE-KF
(c) KF-XRAY-KK-SF-FB
(d) KF-UNIFORM-63N 30W-61N 40W-OZN
(e) OZN-59N 50W-PRAWN-KL
(f) OZN-59N 50W-PORGY-HO
(g) OZN-58N 50W-LOACH-YR

3. Operations on the above routes in MNPS airspace are subject to the following conditions:

(a) A revised flight plan is filed with ATC, and
(b) An appropriate ATC clearance is obtained.

(Note: A revised oceanic clearance will be issued only after coordination between all Oceanic Area Control centers concerned.)

(c) Sufficient navigation capability remains to meet the MNPS (i.e., redundancy may be lacking).

(d) The aircraft concerned may have to accept a lower than optimum flight level during peak traffic hours if the organized track structure extends to the northern part of the NAT.

(e) Nothing in these instructions override any redudancy requirements placed upon an operator by any Operations Specifications or FAR 121, 123, or 135.2, as appropriate.

B. ROUTES BETWEEN ICELAND AND NORTHERN EUROPE:

1. After a review of the navigation facilities available between Iceland and Northern Europe it has been agreed upon by the ICAO members that aircraft equipped with normal airways navigation equipment should be capable of meeting the MNPS when operating over certain routes between Iceland and Northern Europe. The routes will be designated G3 and G11 within and outside MNPS airspace.

G3 will be established as a route between Bergen via Myggenes and Ingo to Keflavik.
G11 will be established between Sumburgh via Akraberg to Myggenes.

2. Operation on certain routes between North Eastern Canada and Ireland or Northern United Kingdom via Iceland:

(a) It is anticipated that a continued requirement may exist for selected routes between N.E. Canada and Iceland and between Iceland and points in Ireland or the Northern U.K. which could be used by aircraft not

normally used in N. Atlantic operations or by aircraft on delivery. The routes listed in paragraph A-2 above should be used for such operations. Aircraft operating along these routes in MNPS airspace which are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

—Loran C

are considered capable of meeting MNPS while operating along these routes.

(b) The above-listed long range navigation equipment need not be permanent aircraft equipment.

C. ROUTES BETWEEN SPECIFIC POINTS IN PORTUGUESE TERRITORY:

1. Aircraft that are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

are considered capable of meeting MNPS while operating along the following routes:

(a) PST-35N 20W-FOXTROT TWO-VSM
(b) CP-3820N 15W-38N 20W-ECHO/DELTA-VSM/MGL
(c) CP-3853N 15W-39N 20W-BRAVO-LM

NORTH ATLANTIC STANDARDIZED AIR/GROUND MEESAGES

1. *General*

1.1 In order to make an evaluation it is proposed that within the North Atlantic (NAT) Region all ATS Air/Ground messages should be categorized under one of the following headings:

(a) Position report
(b) Request Clearance
(c) Revised estimate
(d) Miscellaneous air/ground message

The purpose of the evaluation is to determine whether pilot/controller response times can be improved.

1.2 In order to enable the ground stations to process messages in the shortest possible time, it is requested that pilots should observe the following rules:

1) use the correct type of message applicable to the data transmitted;
2) state the message type on the contact call to the ground station or at the start of the message (except if it is a miscellaneous message);
3) adhere strictly to the sequence of information for the type of message; and
4) all times on each of the messages should be expressed in hours and minutes.

2. *Period of evaluation and scope of application*

2.1 Operational evaluation using the new ATS message types will commence *at 0001 GMT on 22 March 1979.* During the initial period of seven months, data will be collected, analysed and further action taken as necessary. The procedures detailed for the transmission of air/ground messages will apply to transaltantic aircraft operating within or through the Gander, New York, Reykjavik, Santa Maria and Shanwick CTAs whether using HF or G/P VHF.

2.2 It will especially assist the communicators operating the Clearance Delivery Frequencies at Shanwick if westbound oceanic clearance requests are also transmitted in the format and data content specified in para 3.1.2 during the evaluation period.

3. *Description of ATS Message Types*

3.1 It should be appreciated that messages that have no ATS connection, e.g. SELCAL checks, form no part of this evaluation. For the purpose of the evaluation aircraft should transmit air/ground messages using standard RTF phraseology in accordance with the following:

3.1.1 *POSITION*

To be used for routine position reports.

CONTENT OF POSITION REPORT MESSAGE AND DATA SEQUENCE

(a) "POSITION"
(b) Flight identification
(c) Present position
(d) Time over present position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route
(g) Estimate for next position (hours and minutes)
(h) Any further information, e.g. AIREP data or Company message

3.1.2 *REQUEST CLEARANCE*

1) To be used in conjunction with a routine position report to obtain a change of Mach No., flight level or route and to obtain *Westbound* Oceanic clearance prior to entering Reykjavik, Santa Maria or Shanwick CTAs.

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Present or last reported position
(d) Time over present or last reported position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route or oceanic entry point
(g) Estimate for next position or oceanic entry point (hours and minutes)
(h) Requested Mach No (if applicable)
(i) Requested flight level (if applicable)
(j) Requested route (if applicable)
(k) Further information or clarifying remarks

NOTE: the message implies that when a reclearance requested in respect of any single item in (h), (i) or (j) or any combination of these items it is to take effect as soon as possible unless otherwise stated in (k).

2) To be used to request a change of flight level or Mach No. *when a position report message is not appropriate.*

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Requested flight level and/or Mach No.
(d) Further information of clarifying remarks

3.1.3 *REVISED ESTIMATE*

To be used to update estimate for next position.

CONTENT OF REVISED ESTIMATE MESSAGE AND DATA SEQUENCES

(a) "REVISED ESTIMATE"
(b) Flight identification
(c) Next position on assigned route
(d) Revised estimate for next position (hours and minutes)
(e) Any further information

3.1.4 *MISCELLANEOUS*

To be used to pass information or make a request in plain language that does not conform with the three other formats. No message type designator is required to be stated by the pilot since message type will be inserted by the ground station.

CONTENT OF MISCELLANEOUS MESSAGE AND DATA SEQUENCE

(a) Flight identification
(b) General information or request in plain language—form free.

NORTH AMERICAN ROUTES FOR NORTH ATLANTIC TRAFFIC (NAR)

The following information will become effective on November 29, 1979. This information will revise, in its entirety, the North American Routes as published in the publication GRAPHIC NOTICES AND SUPPLEMENTAL DATA dated October 1979.

GENERAL

(a) The NAR system has been developed to achieve the following objectives: (1) to organize the fluctuating and reversing traffic flows in the most efficient possible manner, consistent with the needs of aircraft operators and air traffic services; (2) to expedite flight planning; (3) to reduce the complexity of route clearances and thereby minimize the confusion and error potential inherent in lengthy transmissions and readbacks; and (4) to minimize the time spent by pilots and controllers in the route clearance delivery function.

(b) The NAR system comprises a series of pre-planned routes over existing airway/route systems from/to the following coastal fixes serving the North Atlantic traffic. Most of the NAR routes are divided into two portions.

(1) Common Portion – That portion of the route between the coastal fix and a specified Inland Navigation Facility. Example – Route NA108 common portion is "St. John's (Nfld) HL575 J575 Boston."

(2) Non-Common Portion – That portion of the route between the specified Inland Navigation Facility and the system airport being used by the flight. Example – Route NA108 non-common portion may be "Boston Norwich Saybrook Star Kennedy" or it may be "Boston Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143S Westminister Frederick 082 Radial Frederick Dulles," depending on whether the system airport being used by the flight is Kennedy or Dulles.

(c) These routes are numbered and prefixed by the abbreviation "NA." Odd route numbers have eastbound application only and even route numbers have westbound application only.

(d) Aircraft are considered to be within the NAR system when they join the system at an identified coastal fix; they join the system on departure from one of the identified airports; or when they join the system at an identified Inland Navigation Facility.

(e) Since a primary function of the NAR system is to complement the North Atlantic Organized Track System (NAT/OTS), a limited number of NAR routes appropriate for the coastal fixes serving the OTS and domestic traffic organization are included in the daily NAT/OTS messages published by the Gander and Shanwick OAC's.

(f) All aircraft that enter/exit the North Atlantic via the identified coastal fixes should use the NAR system if their domestic route requirements are compatible with the system. However, when necessary, an operator may flight plan a domestic route other than the one included in the current NAT/OTS message. Similarly, due to traffic conditions, Air Traffic Control may clear an aircraft via a route other than that flight planned.

FLIGHT PLANNING

(a) Route Description

(1) When the route of flight within the NAR system can be described by a single NAR designator, the route should be indicated on the flight plan using the appropriate designator.

(2) In all other cases, a full description of the route is required.

(3) Aircraft flight planning into or from either Goose or Gander Airports, Canada, may file the NAR designator as the route of flight.

ROUTE CLEARANCES

(a) For aircraft operating within the NAR system, the ATC clearance and pilot readback will be as follows:

> (flight identification) IS CLEARED TO THE (destination) AIRPORT VIA NORTH AMERICAN ROUTE (number).

(b) For aircraft operating within the NAR system either to or/from an airport not included in a non-common route, the ATC clearance and pilot readback may be as follows:

> ATC CLEARS (flight identification) TO (overseas destination) VIA J545 HL545 LONDON HL586 STIRLING HL555 BAIE COMEAU NORTH AMERICAN ROUTE 251 GOOSE FLIGHT PLANNED ROUTE...
>
> (flight identification) IS CLEARED TO THE CLEVELAND AIRPORT VIA NORTH AMERICAN ROUTE 246 CHARLEVOIX HL555 QUEBEC HL546 KLEINBURG HL558 LONDON HL545 J545 CLEVELAND...

(c) Westbound aircraft operating within the North Atlantic Organized Track System and destined for one of the selected North American Terminals served by the NAR System, having experienced communications failure prior to receipt of domestic route clearance should consider as its cleared route of flight the NAR associated with its cleared oceanic track as published in the current NAT/OTS message.

(d) Aircraft not operating within the NAR system will be cleared via a fully detailed route.

DOCUMENTATION

(a) It is expected that the following NAR documentation will be carried on the flight deck of each aircraft operating within the NAR system: (1) a description of the current NAR and (2) the information contained in the current NAT/OTS message.

(b) The official NAR route descriptions are contained in both Canadian Ministry of Transport (MOT) and U.S. Federal Aviation Administration (FAA) publications. The official FAA listing appears in both the INTERNATIONAL FLIGHT INFORMATION MANUAL, issued annually and amended quarterly, and in the publication GRAPHIC NOTICES AND SUPPLEMENTAL DATA (U.S. AIP section RAC-9), issued quarterly. Both publications contain identical listings. Changes to the NAR routes are advertised in the bi-weekly publication INTERNATIONAL NOTICES TO AIRMEN and the bi-weekly publication NOTICES TO AIRMEN (CLASS II).

(c) The following listing divides the NAR Route descriptions into two sections according to the direction of flight (Eastbound or Westbound). Each section is subdivided according to the route portion (common or non-common). The common portion describes the NAR route between the Coastal Fix and the Inland Navigational Facility. The non-common portion describes the route between the Inland Navigational Facility and the NAR route system airport being used.

SECTION I – NAR EASTBOUND ROUTES

(A) COMMON PORTION (EASTBOUND)

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA1	Winny	R56	Polly
NA3	Nantucket	J62	Poggo
NA21	Nantucket	Control 1146 Whale Bluse	Sable Island
NA23	Watertown	J595 HL595 Saint John (N.B.) HL506	Sable Island
NA25	Beauce	HL509 J509 Patta Millinocket J506 FL506	Sable Island
NA41	Nantucket	J585 HL585 Yarmouth HL575 Halifax Canso	Color
NA43	Watertown	J595 HL595 Saint John (N.B.) HL506 Halifax Canso	Color
NA45	Beauce	HL509 J509 Patta Millinocket J506 HL506 Halifax Canso	Color
NA47	Canal	J575 HL575 Halifax Canso	Color
NA61	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509	Sydney
NA63	Beauce	HL509 J509 HL509	Sydney
NA65	Nantucket	J585 HL585 Yarmouth HL575	Sydney
NA67	Canal	J575 HL575	Sydney
NA81	Nantucket	J585 HL585 Yarmouth HL575	St. John's (Nfld)
NA83	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509 Sydney HL575	St. John's (Nfld)
NA85	Watertown	J595 HL595 St. John (N.B.) HL573	St. John's (Nfld)
NA87	Beauce	HL509 J509 HL509 Sydney HL575	St. John's (Nfld)
NA89	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573	St. John's (Nfld)
NA91	Canal	J575 HL575	St. John's (Nfld)
NA101	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577 Ramea	Vysta

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA103	Kennebunk	J573 HL573 Ramea	Vysta
NA105	Hyannis	J79 Seaer J573 HL573 Ramea	Vysta
NA107	Watertown	J595, HL595 Saint John (N.B.) HL573 Ramea	Vysta
NA109	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573 Ramea	Vysta
NA111	Canal	J575 HL575 Sydney HL577 Ramea	Vysta
NA121	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577	Gander
NA123	Kennebunk	J573 HL573 Channel Head HL500	Gander
NA125	Hyannis	J79 Seaer J573 HL573 Channel Head HL500	Gander
NA127	Watertown	J595 HL595 Saint John (N.B.) HL573 Channel Head HL500	Gander
NA129	Beauce	HL509 J509 HL509 Moncton HL500	Gander
NA131	Canal	J575 HL575 Sydney HL577	Gander
NA141	Kennebunk	J581 HL581 Stephenville HL579	Springdale
NA143	Kennebunk	J573 HL573 Channel Head	Springdale
NA145	Hyannis	J79 Bangor J581 HL581 Stephenville HL579	Springdale
NA147	Hyannis	J79 Seaer J573 HL573 Channel Head	Springdale
NA151	Beauce	HL509 J509 HL509 Cheps HL581 Stephenville HL579	Springdale
NA161	Kennebunk	J581 HL581 Conay	Dotty
NA163	Hyannis	J79 Bangor J581 HL581 Conay	Dotty
NA165	Beauce	HL509 J509 HL509 Cheps HL581 Conay	Dotty
NA167	Watertown	J595 Bangor J581 HL581 Conay	Dotty
NA181	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA183	Kennebunk	J55 Presque Isle J564 HL564 Charlo HL549	Natasquan
NA185	Hyannis	J79 Bangor J29 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA187	Riviere du Loup	HL560 Mont Joli HL553	Natashquan
NA201	Kennebunk	J581 HL581 Conay HL571	St. Anthony
NA203	Hyannis	J79 Bangor J581 HL581 Conay HL571	St. Anthony
NA207	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA209	Beauce	HL509 J509 HL509 Cheps HL581 Conay HL571	St. Anthony
NA211	Beauce	HL564 J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA213	Riviere du Loup	HL589 Heath Point HL571	St. Anthony
NA215	Riviere du Loup	HL560 Mont Joli HL553	St. Anthony
NA221	Kennebunk	J55 Presque Isle J564 HL564	Port Menier
NA223	Hyannis	J79 Bangor J29 Presque Isle J564 HL564	Port Menier
NA225	Cambridge	J49 Friar J55 Presque Isle J564 HL564	Port Menier
NA227	Riviere du Loup	HL560 Mont Joli HL553	Port Menier
NA241	Kennebunk	J55 Presque Isle J582 HL582 Sept Illes HL560	Goose

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA243	Kennebunk	J55 Presque Isle Lake Eon HL560	Goose
NA245	Hyannis	J79 Bangor J29 Presque Isle J582 HL582 Sept Iles HL560	Goose
NA247	Hyannis	J79 Bangor J29 Presque Isle Lake Eon HL560	Goose
NA249	Riviere du Loup	HL560	Goose
NA251	Baie Comeau	HL555 Lake Eon HL560	Goose
NA253	Cambridge	Sherbrook HL563 Riviere du Loup HL560	Goose
NA261	Kennebunk	J55 Presque Isle J582 HL582	Waco
NA263	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Waco
NA265	Cambridge	Sherbrooke HL563 Baie Comeau HL586	Waco
NA267	Baie Comeau	HL586	Waco
NA281	Kennebunk	J55 Presque Isle J582 HL582	Hopedale
NA283	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Hopedale
NA285	Cambridge	Sherbrooke HL563	Hopedale
NA287	Baie Comeau	HL563	Hopedale
NA289	Peck	J551 HL551	Hopedale

(B) NON-COMMON PORTION (EASTBOUND)

VIA BEAUCE

From	Non-Common Portions to Beauce
Montreal/Mirabel	V363 HL565
Montreal/Dorval	V352 HL509
Ottawa	V300 Valie Cote St. Luc
Toronto	V98 Stirling HL555 Montreal HL509
Detroit	Aylmer Toronto Stirling HL555 Montreal HL509
Chicago	London HL586 Stirling HL555 Montreal HL509

VIA BAIE COMEAU

From	Non-Common Portions to Baie Comeau
Montreal/Mirabel	V318 HL553 Charlevoix HL555
Montreal/Dorval	V352 V98 HL586
Ottawa	V360 V318 HL553 Charlevoix HL555
Toronto	V98 Stirling HL555
Detroit	Aylmer Toronto Stirling HL555
Chicago	London HL586 Stirling HL555

VIA CAMBRIDGE

There is no non-common portion to Cambridge.

VIA CANAL

There is no non-common portion to Canal.

VIA HYANNIS

There is no non-common portion to Hyannis.

VIA KENNEBUNK

There is no non-common portion to Kennebunk.

VIA NANTUCKET

From	Non-Common Portions to Nantucket
Kennedy	Sardi 7 Departure Direct

VIA PECK

From	Non-Common Portions to Peck
Chicago	Direct

VIA RIVIERE DU LOUP

From	Non-Common Portions to Riviere du Loup
Montreal/Mirabel	V318 HL553 Charlevoix
Montreal/Dorval	V352 V98 HL586 Quebec HL560
Toronto	V98 Stirling HL555 Quebec HL560
Ottawa	V360 V318 HL553 Charlevoix
Detroit	Aylmer Toronto Stirling HL555 Quebec HL560
Chicago	London HL586 Stirling HL555 Quebec HL560

VIA WATERTOWN

From	Non-Common Portions to Watertown
Chicago	London HL595 J595
Detroit	Aylmer Toronto
Toronto	V98 281 Radial Watertown

VIA WINNY

From	Non-Common Portions to Winny
Kennedy	Winny 2 Departure Direct

SECTION 2 - NAR WESTBOUND ROUTES

(A) COMMON PORTION (WESTBOUND)

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA2	Polly	J97	Nantucket
NA4	Poggo	Direct	Hyannis
NA20	Sable Island	Bluse Whale Control 1146	Herin
NA22	Sable Island	HL506 Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA40	Color	Canso Halifax HL575 J575	Boston
NA42	Color	Canso Halifax HL575	Yarmouth
NA44	Color	Canso Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA60	Sydney	HL575	Yarmouth
NA62	Sydney	HL575 J575	Boston
NA464	Sydney	HL509 Moncton HL500 J500 HL500	Sherbrooke
NA80	St. John's (Nfld.)	HL575	Yarmouth
NA82	St. John's (Nfld.)	HL575 J575	Boston
NA84	St. John's (Nfld.)	HL575 Sydney HL509 Moncton HL500 J500 HL500	Sherbrook
NA100	Vysta	Ramea HL577 Sydney HL575	Yarmouth
NA102	Vysta	Ramea HL577 Sydney HL575 J575	Boston
NA104	Vysta	Ramea HL573 J573	Kennebunk
NA106	Vysta	Ramea HL573 Channel Head HL500 J500 HL500	Sherbrooke
NA120	Gander	HL577 Sydney HL575	Yarmouth
NA122	Gander	HL577 Sydney HL575 J575	Boston
NA124	Gander	HL500 Channel Head HL573 J573	Kennebunk
NA126	Gander	HL500 J500 HL500	Sherbrooke
NA140	Springdale	HL579 Stephenville HL581 J581	Kennebunk
NA142	Springdale	HL579 Stephenville HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA160	Dotty	Conay HL581 J581	Kennebunk
NA162	Dotty	Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA180	Natashquan	HL549 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA182	Natashquan	HL549 Charlo HL589	Riviere du Loup
NA184	Natashquan	HL553	Charlevoix
NA200	St. Anthony	HL571 Conay HL581 J581	Kennebunk
NA202	St. Anthony	HL571 Heath Point HL589 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA204	St. Anthony	HL553	Charlevoix
NA206	St. Anthony	HL571 Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA208	St. Anthony	HL571 Heath Point HL589	Riviere du Loup
NA210	St. Anthony	HL553 Mont Joli HL560	Riviere du Loup
NA220	Port Menier	HL564 J564 Presque Isle J55	Kennebunk
NA222	Port Menier	HL553 Mont Joli HL560	Riviere du Loup
NA224	Port Menier	HL553	Charlevoix
NA240	Goose	HL560 Lake Eon Presque Isle J55	Kennebunk
NA242	Goose	HL560 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA244	Goose	HL560 Riviere du Loup HL563 J563	Albany
NA246	Goose	HL560 Sept Iles HL555	Charlevoix

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA260	Waco	HL582 J582 Presque Isle J55	Kennebunk
NA262	Waco	HL586 Baie Comeau HL563 J563	Albany
NA264	Waco	HL586	Charlevoix
NA280	Hopedale	HL551 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA282	Hopedale	HL551 Wabush HL561 J561 Presque Isle J55	Kennebunk
NA284	Hopedale	HL551 Wabush HL561 Baie Comeau HL563 J563	Albany
NA286	Hopedale	HL551 Chibougamau HL570 J570	Albany
NA288	Hopedale	HL551 Wabush HL561 Baie Comeau HL555	Charlevoix
NA290	Hopedale	HL551 J551 Peck J94 Pullman V84 Pappi	Chicago
NA292	Hopedale	HL551 Chibougamau HL545	Midland
NA294	Hopedale	HL551 Chibougamau HL570	Montreal/Mirabel /Dorval
NA302	Schefferville	HL561 J561 Presque Isle J55	Kennebunk
NA304	Schefferville	HL561 Baie Comeau HL563 J563	Albany
NA306	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570 J570	Albany
NA308	Schefferville	HL561 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA310	Schefferville	HL548 Nitchequon HL545	Midland
NA312	Schefferville	HL561 Baie Comeau HL555	Charlevoix
NA314	Schefferville	HL548 J548 Pullman V84 Pappi	Chicago
NA316	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570	Montreal/Mirabel /Dorval

(B) NON-COMMON PORTION (WESTBOUND)

VIA ALBANY

Non-Common Portions from Albany

Albany	Kingston Kingston Arrival	Kennedy
Albany	Pawling Calverton Calverton 193 Radial J121 Coyle 100 Radial Coyle	McGuire
Albany	J49 Hancock V153 Lake Henry V149 Mazie	Philadelphia
Albany	Pawling Calverton Calverton 193 Radial J121 Sea Isle	Dover
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA BOSTON

Non-Common Portions from Boston

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA260	Waco	HL582 J582 Presque Isle J55	Kennebunk
NA262	Waco	HL586 Baie Comeau HL563 J563	Albany
NA264	Waco	HL586	Charlevoix
NA280	Hopedale	HL551 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA282	Hopedale	HL551 Wabush HL561 J561 Presque Isle J55	Kennebunk
NA284	Hopedale	HL551 Wabush HL561 Baie Comeau HL563 J563	Albany
NA286	Hopedale	HL551 Chibougamau HL570 J570	Albany
NA288	Hopedale	HL551 Wabush HL561 Baie Comeau HL555	Charlevoix
NA290	Hopedale	HL551 J551 Peck J94 Pullman V84 Pappi	Chicago
NA292	Hopedale	HL551 Chibougamau HL545	Midland
NA294	Hopedale	HL551 Chibougamau HL570	Montreal/Mirabel /Dorval
NA302	Schefferville	HL561 J561 Presque Isle J55	Kennebunk
NA304	Schefferville	HL561 Baie Comeau HL563 J563	Albany
NA306	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570 J570	Albany
NA308	Schefferville	HL561 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA310	Schefferville	HL548 Nitchequon HL545	Midland
NA312	Schefferville	HL561 Baie Comeau HL555	Charlevoix
NA314	Schefferville	HL548 J548 Pullman V84 Pappi	Chicago
NA316	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570	Montreal/Mirabel /Dorval

(B) NON-COMMON PORTION (WESTBOUND)

VIA ALBANY

Non-Common Portions from Albany

Albany	Kingston Kingston Arrival	Kennedy
Albany	Pawling Calverton Calverton 193 Radial J121 Coyle 100 Radial Coyle	McGuire
Albany	J49 Hancock V153 Lake Henry V149 Mazie	Philadelphia
Albany	Pawling Calverton Calverton 193 Radial J121 Sea Isle	Dover
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA BOSTON

Non-Common Portions from Boston

Hyannis	Hyannis 014 Radial Scupp	Boston
Hyannis	Hyannis Transition Suffolk 2 Arrival	Kennedy
Hyannis	J150 J121 Coyle 100 Radial Coyle	McGuire
Hyannis	J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Hyannis	J150 J121 Sea Isle	Dover
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA KENNEBUNK

Non-Common Portions from Kennebunk

Kennebunk	Kennebunk 178 Radial Scupp	Boston
Kennebunk	Kennebunk Transition Saybrook Arrival	Kennedy
Kennebunk	J55 J121 Coyle 100 Radial Coyle	McGuire
Kennebunk	J55 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Kennebunk	J55 J121 Sea Isle	Dover
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA MIDLAND

Non-Common Portions from Midland

Midland	HL587 V34 Kleinburg	Toronto
Midland	HL545 London HL586 V98 Desdn V2 Rhyme	Detroit

VIA MONTREAL/MIRABEL/DORVAL

There is no non-common portion from Montreal/Mirabel/Dorval.

VIA NANTUCKET

Non-Common Portions from Nantucket

Nantucket	Nantucket 308 Radial J150 Hampton Suffolk 2 Arrival	Kennedy

VIA RIVIERE DU LOUP

Non-Common Portions from Riviere du Loup

Riviere du Loup	**HL560 Quebec HL546 St. Felix de Valois V316**	**Montreal/Mirabel /Dorval**
Riviere du Loup	**Charlevoix H553 V360**	**Ottawa**
Riviere du Loup	**Charlevoix HL553 Midland HL587 V34 Kleinburg**	**Toronto**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme**	**Detroit**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi**	**Chicago**

VIA SHERBROOKE

Non-Common Portions from Sherbrooke

Sherbrooke	**HL500 V300 St. Jean (Que)**	**Montreal/Mirabel /Dorval**
Sherbrooke	**HL500 St. Jean (Que) V487 Montreal V316**	**Ottawa**
Sherbrooke	**HL500 Ottawa HL553 Midland HL587 V34 Kleinburg**	**Toronto**
Sherbrooke	**HL500 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme**	**Detroit**
Sherbrooke	**HL500 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi**	**Chicago**

VIA YARMOUTH

Non-Common Portions from Yarmouth

Yarmouth	HL575 J575 Scupp	Boston
Yarmouth	HL585 J585 J150 Hyannis Hyannis Transition Suffolk 2 Arrival	Kennedy
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial Coyle	McGuire
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Yarmouth	HL585 J585 J150 J121 Sea Isle	Dover
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

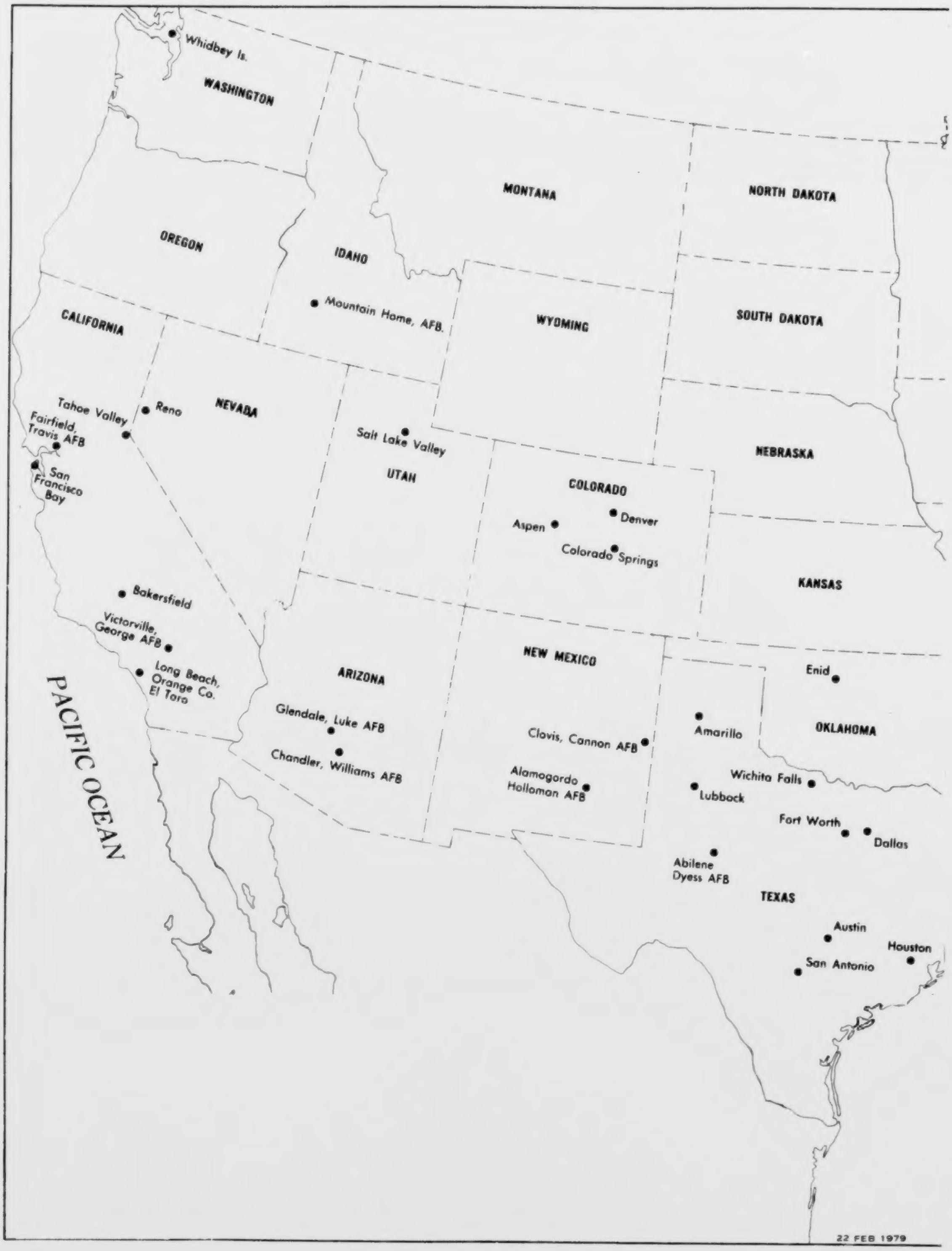
PARACHUTE JUMPING AREAS

A tabulation of parachute jumping areas will no longer be carried in this publication. Please consult the latest Airport/Facility Directory for a current description of parachute jumping areas.

TERMINAL AREA GRAPHIC NOTICES

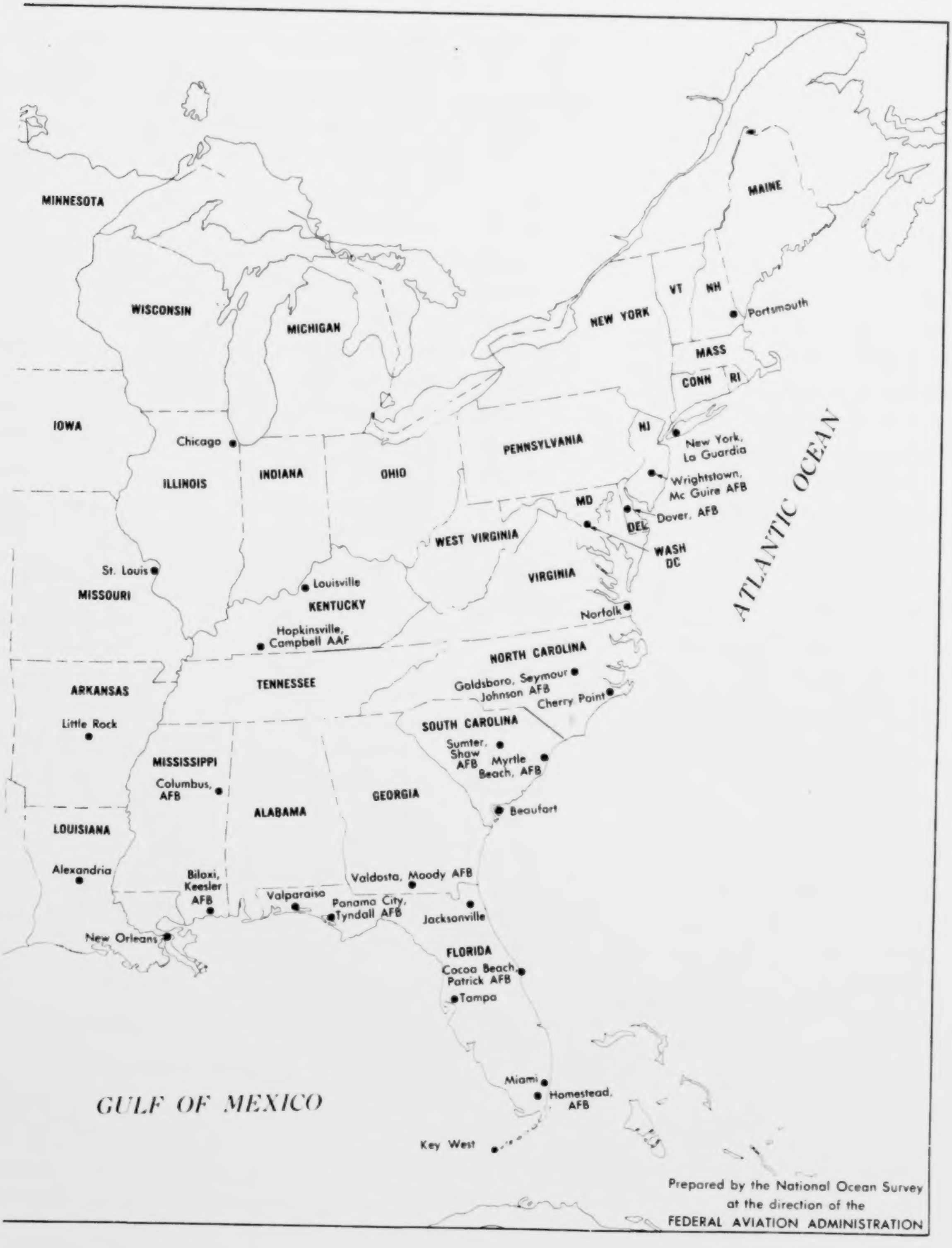
Under this heading, on the following pages, will be found a number of graphics showing areas of concentrated traffic for the information and guidance of pilots operating under VFR in the terminal areas depicted. The graphics are intended to assist VFR pilots planning flight in the areas and in many instances recommended or suggested VFR routes/corridors are shown. The information presented is in no way to be considered mandatory or "legal": it is advisory only.

INDEX OF TERMINAL AREA GRAPHIC NOTICES


Whidbey Is.
WASHINGTON
MONTANA
NORTH DAKOTA
OREGON
IDAHO
Mountain Home, AFB.
WYOMING
SOUTH DAKOTA
CALIFORNIA
Tahoe Valley
Reno
NEVADA
Fairfield, Travis AFB
San Francisco Bay
Salt Lake Valley
UTAH
NEBRASKA
COLORADO
Aspen
Denver
Colorado Springs
KANSAS
Bakersfield
Victorville, George AFB
Long Beach, Orange Co. El Toro
PACIFIC OCEAN
ARIZONA
Glendale, Luke AFB
Chandler, Williams AFB
NEW MEXICO
Clovis, Cannon AFB
Alamogordo Holloman AFB
Enid
Amarillo
OKLAHOMA
Wichita Falls
Lubbock
Fort Worth
Dallas
Abilene Dyess AFB
TEXAS
Austin
Houston
San Antonio

22 FEB 1979

INDEX OF TERMINAL AREA GRAPHIC NOTICES


MINNESOTA
WISCONSIN
MICHIGAN
MAINE
VT
NH
Portsmouth
NEW YORK
MASS
CONN
RI
IOWA
Chicago
ILLINOIS
INDIANA
OHIO
PENNSYLVANIA
NJ
New York, La Guardia
Wrightstown, Mc Guire AFB
MD
DEL
Dover, AFB
WASH DC
WEST VIRGINIA
VIRGINIA
ATLANTIC OCEAN
St. Louis
MISSOURI
Louisville
KENTUCKY
Norfolk
Hopkinsville, Campbell AAF
NORTH CAROLINA
ARKANSAS
TENNESSEE
Goldsboro, Seymour Johnson AFB
Cherry Point
Little Rock
SOUTH CAROLINA
Sumter, Shaw AFB
Myrtle Beach, AFB
MISSISSIPPI
Columbus, AFB
ALABAMA
GEORGIA
Beaufort
LOUISIANA
Alexandria
Biloxi, Keesler AFB
Valdosta, Moody AFB
Valparaiso
Panama City, Tyndall AFB
Jacksonville
New Orleans
FLORIDA
Cocoa Beach, Patrick AFB
Tampa
Miami
Homestead, AFB
GULF OF MEXICO
Key West

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

NEW GRAPHIC-★
MAJOR REVISION-†

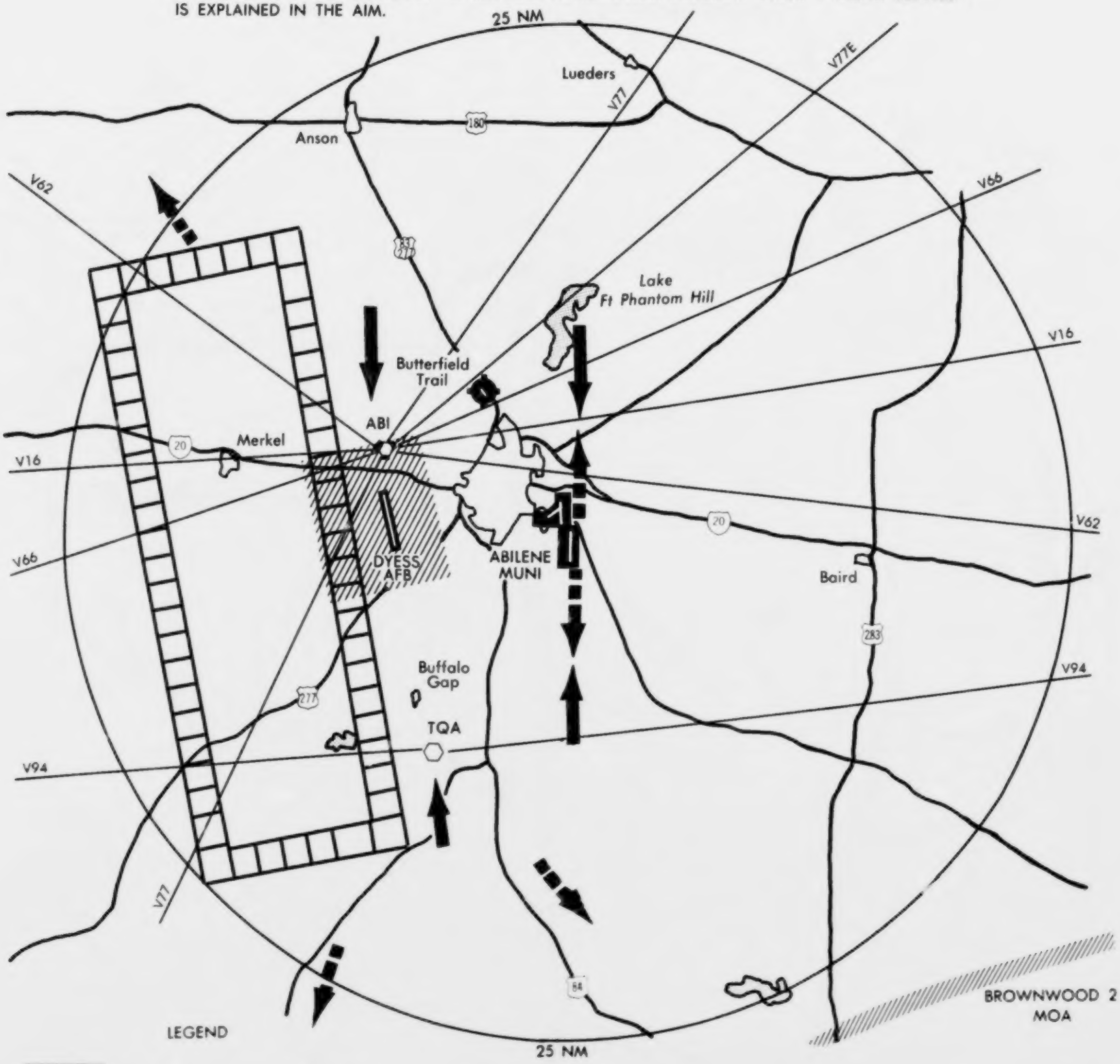
TABLE OF CONTENTS

Abilene, Dyess AFB, Tx. ... Term-5
Alamogordo, Holloman AFB, N.M. ... Term-6
Alexandria, La. ... Term-7
Amarillo, Tx. ... Term-8
Aspen, Co. ... Term-9
Austin, Tx. ... †Term-10
Bakersfield, Ca. ... Term 11
Beaufort, S.C. ... Term-12
Biloxi, Keesler AFB, Ms. ... Term-13
Chandler, Williams AFB, Az. ... Term-14
Cherry Point, N.C. ... Term-15
Chicago, Il. ... Term-16
Clovis, Cannon AFB, N.M. ... Term-17
Cocoa Beach, Patrick AFB, Fl. ... Term-18
Colorado Springs, Co. ... Term-19
Columbus, AFB, Ms. ... Term-20
Dallas, Tx. ... Term-21
Denver, Co. ... Term-22
Dover, AFB, De. ... Term-23
Enid, Ok. ... Term-24
Fairfield, Travis AFB, Ca. ... Term-25
Fort Worth, Tx. ... Term-26
Glendale, Luke AFB, Az. ... Term-27
Goldsboro, Seymour Johnson AFB, N.C. ... Term-28
Homestead AFB, Fl. ... Term-29
Hopkinsville, Campbell AAF, Ky. ... Term-30
Houston, Tx. ... Term-31
Jacksonville, Fl. ... Term-32
Key West, Fl. ... Term-33
Little Rock, Ar. ... Term-34
Long Beach, Orange Co. El Toro, Ca. ... Term-35
Louisville, Ky. ... Term-36
Lubbock, Tx. ... Term-37
Miami, Fl. ... Term 38
Mountain Home, AFB, Id. ... Term-39
Myrtle Beach, AFB, S.C. ... Term-40
New Orleans, La. ... Term-41
New York, La Guardia, N.Y. ... Term-42
Norfolk, Va. ... Term-43
Panama City, Tyndall AFB, Fl. ... Term-44
Portsmouth, Pease AFB, N.H. ... Term-45
Reno, Nv. ... Term-46
St. Louis, Mo. ... Term-47
Salt Lake Valley, Ut. ... Term-48
San Antonio, Tx. ... †Term-49
San Francisco Bay, Ca. ... Term-50
Sumter, Shaw AFB, S.C. ... Term-5
Tahoe Valley, Ca. ... Term-52
Tampa, Fl. ... Term-53
Valdosta, Moody AFB, Ga. ... Term-54
Valparaiso, Fl. ... Term-55
Victorville, George AFB, Ca. ... †Term-56
Whidbey Is., Wa. ... Term-57
Wichita Falls, Tx. ... Term-58
Wrightstown, McGuire AFB, N.J. ... Term-59
Washington Nat'l Arpt. Noise Abatement Procedure ... Term-60

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ABILENE-DYESS, TEXAS

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. AIRCRAFT LANDING ABILENE MUNICIPAL ARE ENCOURAGED TO CONTACT ABILENE APPROACH CONTROL ON 121.3 MHz APPROXIMATELY 25 MILES OUT FOR STAGE II SERVICES. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


25 NM
Lueders
V77E
V77
180
Anson
V62
V66
277
Lake
Ft Phantom Hill
V16
Butterfield
Trail
ABI
20
Merkel
V16
V62
V66
DYESS
AFB
ABILENE
MUNI
20
Baird
283
V94
Buffalo
Gap
TQA
277
V94
V77
84
BROWNWOOD 2
MOA
25 NM

LEGEND

- ▭▭▭ RADAR VECTOR PATTERN 4000 MSL
- ▨ AIRPORT TRAFFIC PATTERN 3500 MSL
- ➡ TURBO JET ARRIVAL ROUTE
- ➡ TURBO JET DEPARTURE ROUTE

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

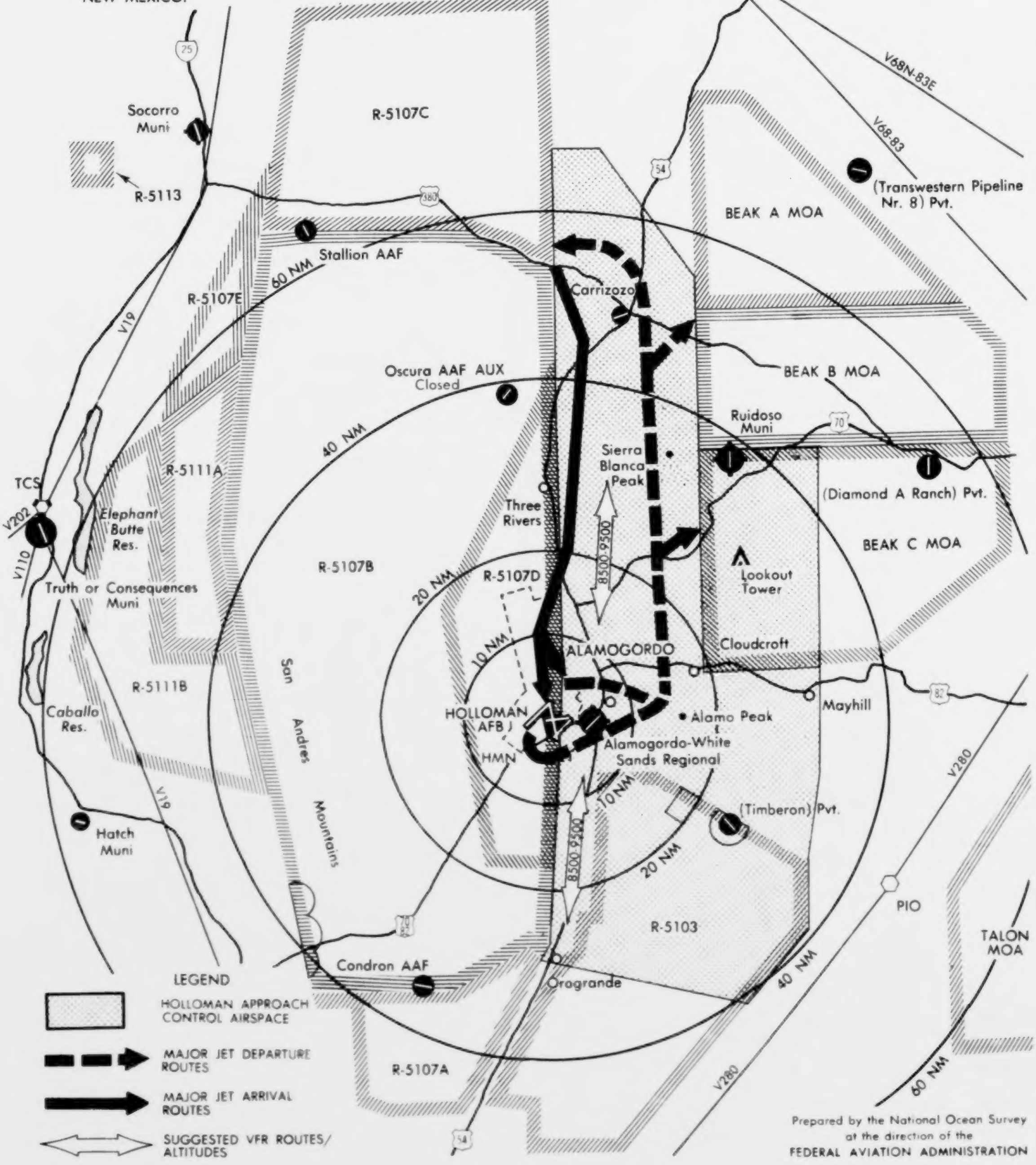
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALAMOGORDO, HOLLOMAN AFB, NEW MEXICO

THIS NOTICE DEPICTS THE FLOW OF AIR TRAFFIC WITHIN THE HOLLOMAN AREA. THE PURPOSE OF THE CHART IS TO ASSIST PILOTS OPERATING VFR IN PLANNING THEIR ROUTE INTO AND THROUGH THE AREA. VFR AIRCRAFT SHOULD CONTACT HOLLOMAN APPROACH CONTROL ON 120.6 OR 324.3 FOR STAGE II SERVICE. CAUTION: HIGH SPEED JET AIRCRAFT CROSSING HIGHWAY 54, EAST TO WEST AT OR BELOW 2000 AGL IN THE VICINITY OF THREE RIVERS, NEW MEXICO.

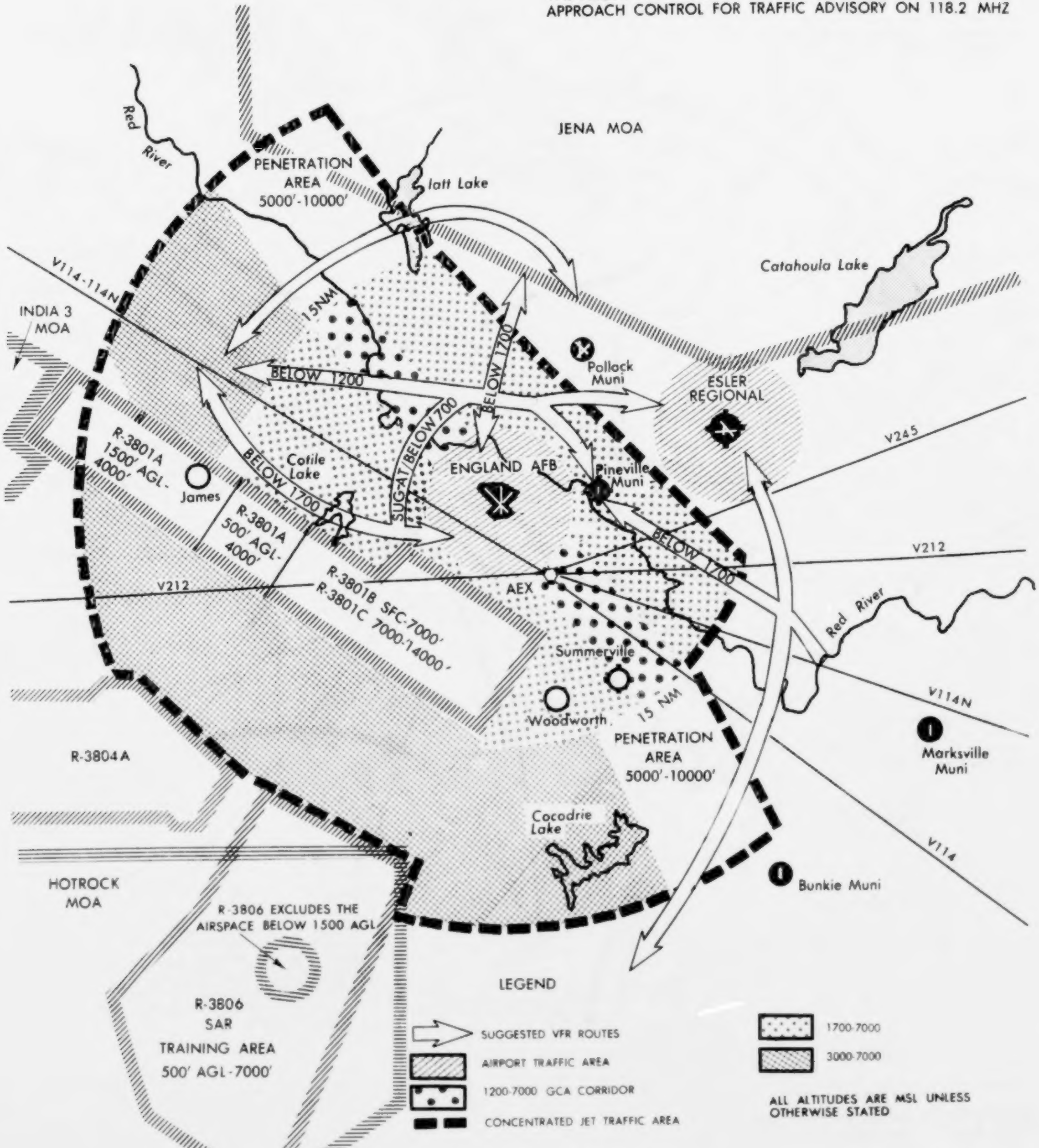

25
Socorro Muni
R-5113
R-5107C
380
54
V68N-83E
V68-83
(Transwestern Pipeline Nr. 8) Pvt.
BEAK A MOA
Stallion AAF
60 NM
R-5107E
Carrizozo
V19
Oscura AAF AUX Closed
BEAK B MOA
40 NM
Ruidoso Muni
70
R-5111A
Sierra Blanca Peak
(Diamond A Ranch) Pvt.
TCS
V202
Elephant Butte Res.
Three Rivers
BEAK C MOA
V110
8500-9500
Lookout Tower
Truth or Consequences Muni
R-5107B
20 NM
R-5107D
Cloudcroft
ALAMOGORDO
10 NM
San Andres Mountains
Mayhill
82
R-5111B
HOLLOMAN AFB
Alamo Peak
Caballo Res.
HMN
Alamogordo-White Sands Regional
V280
10 NM
(Timberon) Pvt.
V19
Hatch Muni
8500-9500
20 NM
PIO
70
R-5103
TALON MOA
Condron AAF
Orogrande
40 NM
R-5107A
V280
60 NM
54
LEGEND
▨ HOLLOMAN APPROACH CONTROL AIRSPACE
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES/ ALTITUDES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALEXANDRIA, LOUISIANA

VFR PILOTS ARE ENCOURAGED TO CONTACT ALEXANDRIA APPROACH CONTROL FOR TRAFFIC ADVISORY ON 118.2 MHZ

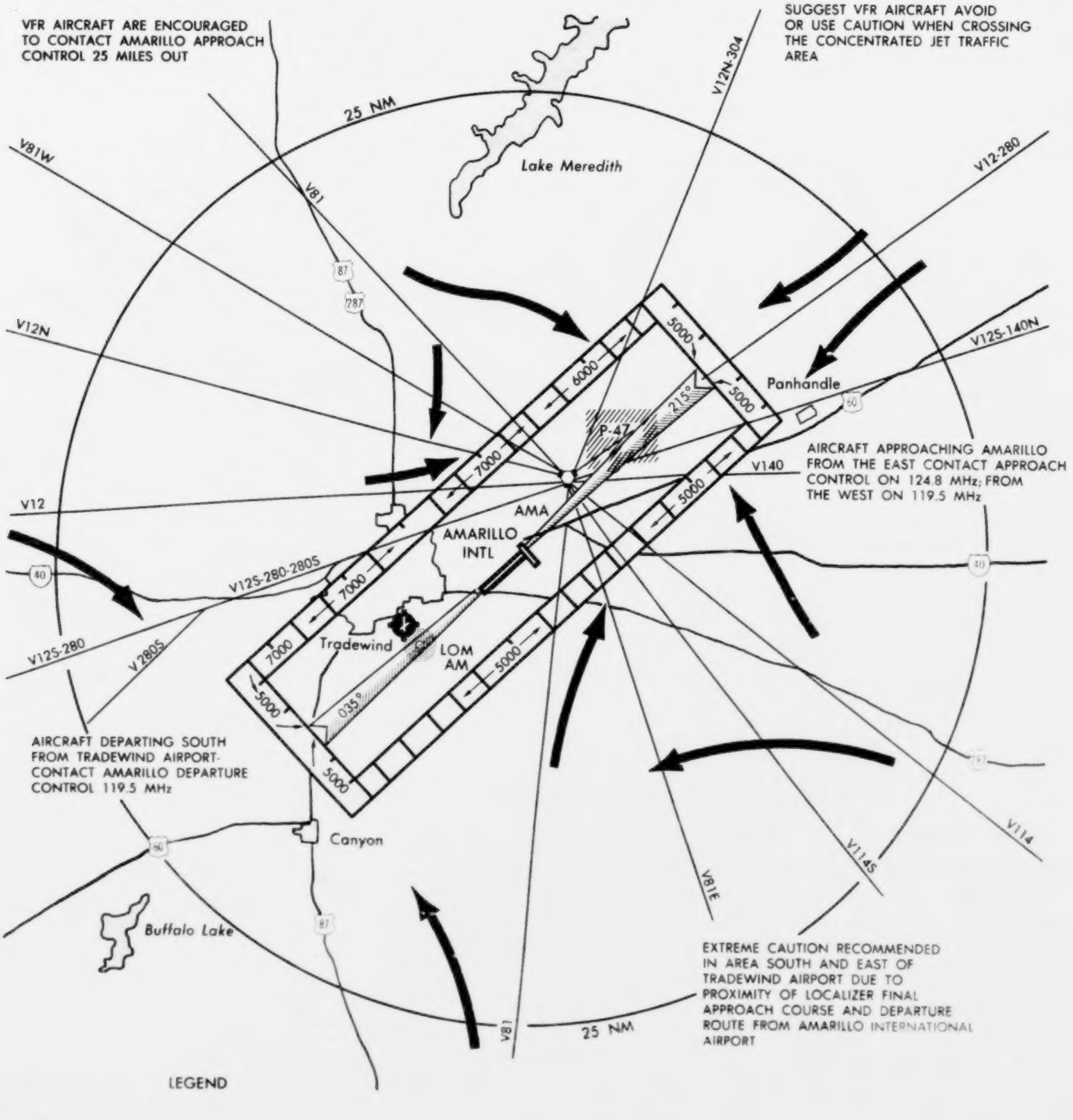

JENA MOA
Red River
PENETRATION AREA 5000'-10000'
Iatt Lake
Catahoula Lake
V114-114N
INDIA 3 MOA
15NM
BELOW 1200
BELOW 1700
SUG-AT BELOW 700
Pollack Muni
ESLER REGIONAL
V245
R-3801A 1500' AGL-4000'
James
Cotile Lake
BELOW 1700
ENGLAND AFB
Pineville Muni
R-3801A 500' AGL-4000'
BELOW 1700
V212
V212
AEX
R-3801B SFC-7000'
R-3801C 7000-14000'
Red River
Summerville
Woodworth
15 NM
PENETRATION AREA 5000'-10000'
V114N
Marksville Muni
R-3804A
Cocodrie Lake
V114
HOTROCK MOA
Bunkie Muni
R-3806 EXCLUDES THE AIRSPACE BELOW 1500 AGL
R-3806 SAR TRAINING AREA 500' AGL-7000'
LEGEND
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
1200-7000 GCA CORRIDOR
CONCENTRATED JET TRAFFIC AREA
1700-7000
3000-7000

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL


25 NM
Lake Meredith
V81W
V81
87
287
V12N
V12
40
V12S-280-280S
V12S-280
V280S
V12N-304
V12-280
V12S-140N
Panhandle
60
5000
6000
7000
215°
P-47
V140
AMA
AMARILLO INTL
Tradewind
LOM AM
035°
Canyon
Buffalo Lake
V81E
V114S
V114
25 NM

VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AMARILLO APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THE CONCENTRATED JET TRAFFIC AREA

AIRCRAFT APPROACHING AMARILLO FROM THE EAST CONTACT APPROACH CONTROL ON 124.8 MHz; FROM THE WEST ON 119.5 MHz

AIRCRAFT DEPARTING SOUTH FROM TRADEWIND AIRPORT-CONTACT AMARILLO DEPARTURE CONTROL 119.5 MHz

EXTREME CAUTION RECOMMENDED IN AREA SOUTH AND EAST OF TRADEWIND AIRPORT DUE TO PROXIMITY OF LOCALIZER FINAL APPROACH COURSE AND DEPARTURE ROUTE FROM AMARILLO INTERNATIONAL AIRPORT

LEGEND

☐☐☐ RADAR VECTOR PATTERN
CONCENTRATED JET TRAFFIC AREA

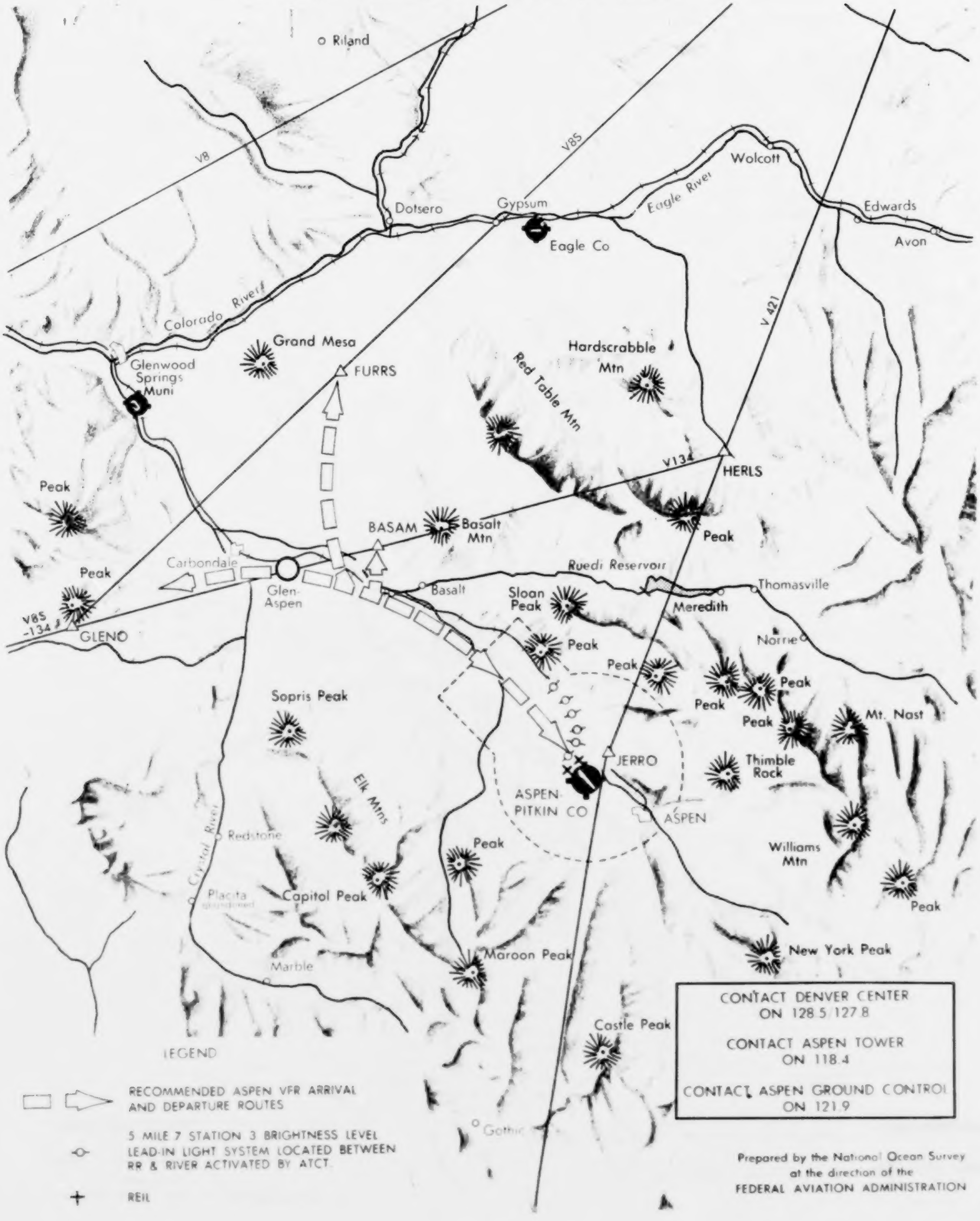
➡ TURBO JET ARRIVAL ROUTE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ASPEN, COLORADO, ASPEN, PITKIN CO.


Riland
V8
V85
Dotsero
Gypsum
Eagle Co
Eagle River
Wolcott
Edwards
Avon
Colorado River
Grand Mesa
Glenwood Springs Muni
FURRS
Red Table Mtn
Hardscrabble Mtn
V421
V134
HERLS
Peak
BASAM
Basalt Mtn
Carbondale
Glen-Aspen
Basalt
Ruedi Reservoir
Thomasville
Meredith
Sloan Peak
V85 -134
GLENO
Norrie
Sopris Peak
Elk Mtns
Mt. Nast
JERRO
Thimble Rock
ASPEN-PITKIN CO
ASPEN
Crystal River
Redstone
Placita
Capitol Peak
Williams Mtn
Maroon Peak
New York Peak
Marble
Castle Peak
Gothic

LEGEND

RECOMMENDED ASPEN VFR ARRIVAL AND DEPARTURE ROUTES

5 MILE 7 STATION 3 BRIGHTNESS LEVEL LEAD-IN LIGHT SYSTEM LOCATED BETWEEN RR & RIVER ACTIVATED BY ATCT

\+ REIL

CONTACT DENVER CENTER
ON 128.5/127.8

CONTACT ASPEN TOWER
ON 118.4

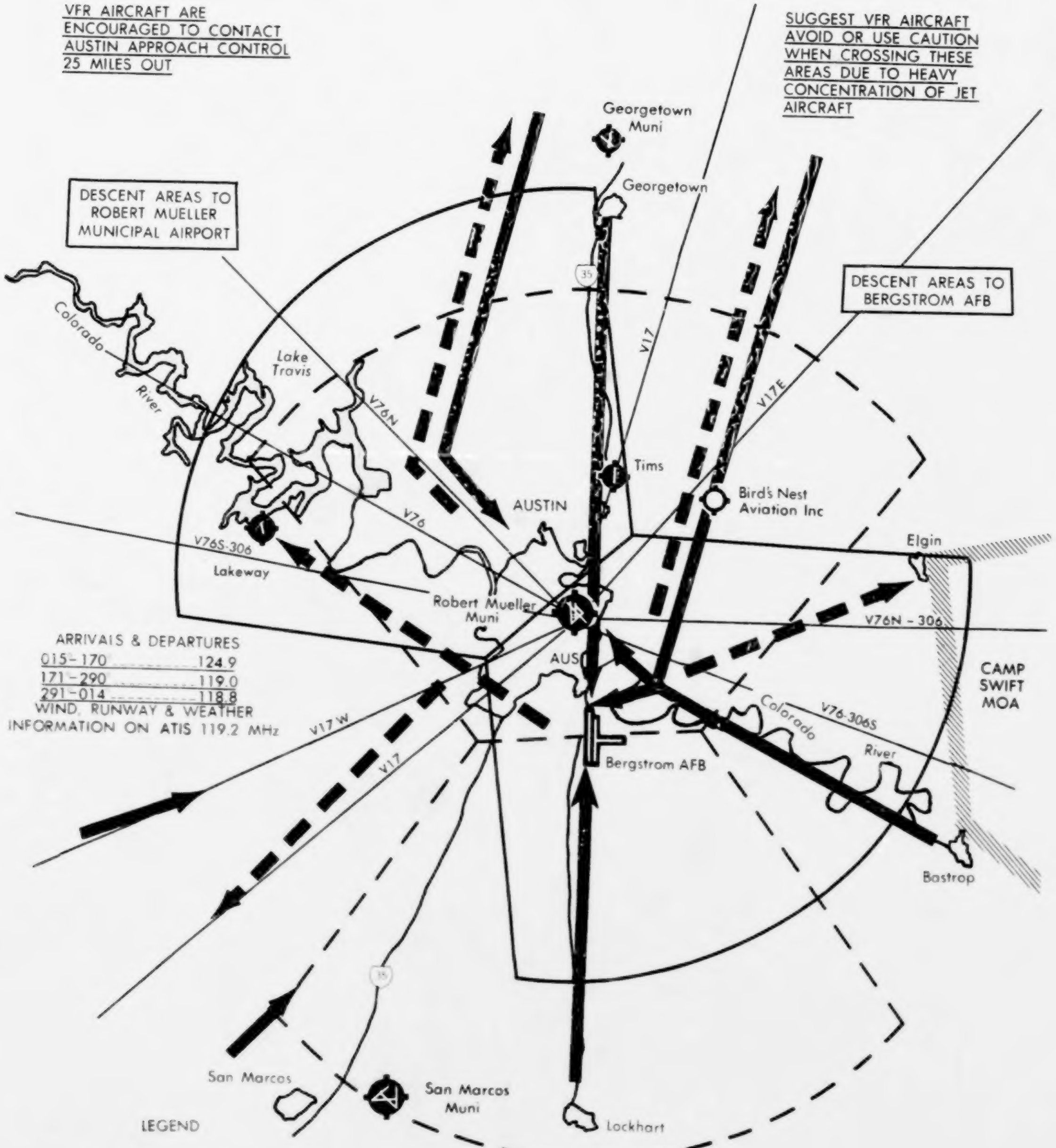
CONTACT ASPEN GROUND CONTROL
ON 121.9

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AUSTIN, TEXAS



VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AUSTIN APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THESE AREAS DUE TO HEAVY CONCENTRATION OF JET AIRCRAFT

DESCENT AREAS TO ROBERT MUELLER MUNICIPAL AIRPORT

DESCENT AREAS TO BERGSTROM AFB

ARRIVALS & DEPARTURES
015-170 .... 124.9
171-290 .... 119.0
291-014 .... 118.8
WIND, RUNWAY & WEATHER INFORMATION ON ATIS 119.2 MHz

Georgetown Muni
Georgetown
35
Lake Travis
Colorado River
V76N
V17
V17E
Tims
Bird's Nest Aviation Inc
AUSTIN
V76
V76S-306
Lakeway
Robert Mueller Muni
AUS
Elgin
V76N - 306
CAMP SWIFT MOA
V17 W
V17
Colorado River
V76-306S
Bergstrom AFB
Bastrop
35
San Marcos
San Marcos Muni
Lockhart

LEGEND

➡ TURBOJET CONVENTIONAL DESCENT ROUTES CORRIDORS FROM 10,000 MSL TO SURFACE

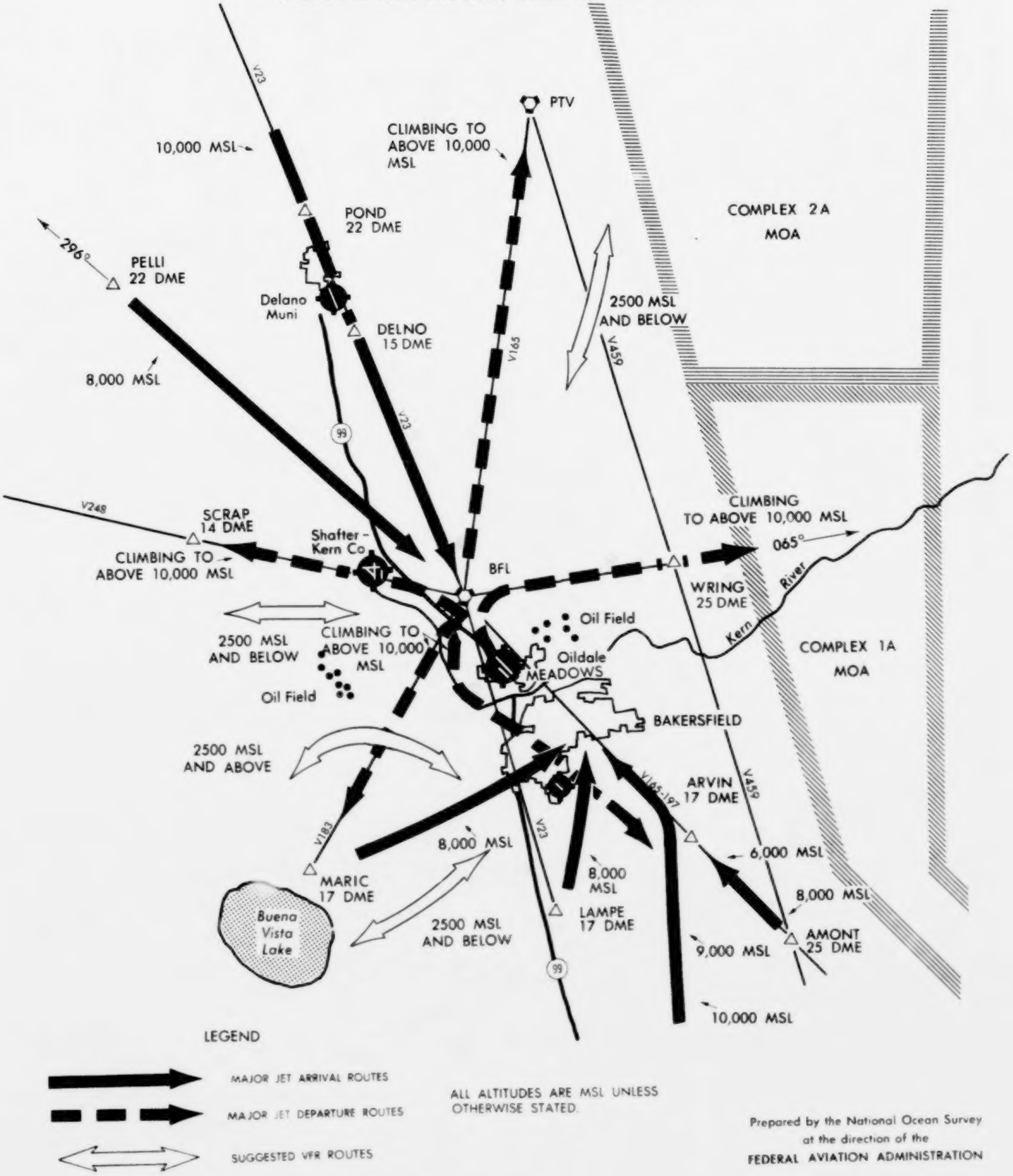
- - ➡ TURBOJET CONVENTIONAL CLIMB ROUTES CORRIDORS FROM SURFACE TO 10,000 MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BAKERSFIELD, CALIFORNIA

THIS CHART SHOWS THE ARRIVAL AND DEPARTURE ROUTES MOST FREQUENTLY USED BY HIGH PERFORMANCE AIRCRAFT AT MEADOWS FIELD, BAKERSFIELD, CALIFORNIA.


V23
PTV
10,000 MSL
CLIMBING TO ABOVE 10,000 MSL
POND 22 DME
COMPLEX 2A MOA
296°
PELLI 22 DME
Delano Muni
DELNO 15 DME
2500 MSL AND BELOW
V165
V459
8,000 MSL
99
V23
V248
SCRAP 14 DME
CLIMBING TO ABOVE 10,000 MSL
Shafter-Kern Co.
CLIMBING TO ABOVE 10,000 MSL
BFL
CLIMBING TO ABOVE 10,000 MSL
065°
WRING 25 DME
Kern River
Oil Field
2500 MSL AND BELOW
CLIMBING TO ABOVE 10,000 MSL
Oildale
MEADOWS
COMPLEX 1A MOA
Oil Field
BAKERSFIELD
2500 MSL AND ABOVE
V165-197
ARVIN 17 DME
V459
V183
V23
8,000 MSL
6,000 MSL
8,000 MSL
MARIC 17 DME
8,000 MSL
Buena Vista Lake
LAMPE 17 DME
2500 MSL AND BELOW
AMONT 25 DME
9,000 MSL
99
10,000 MSL
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES
SUGGESTED VFR ROUTES

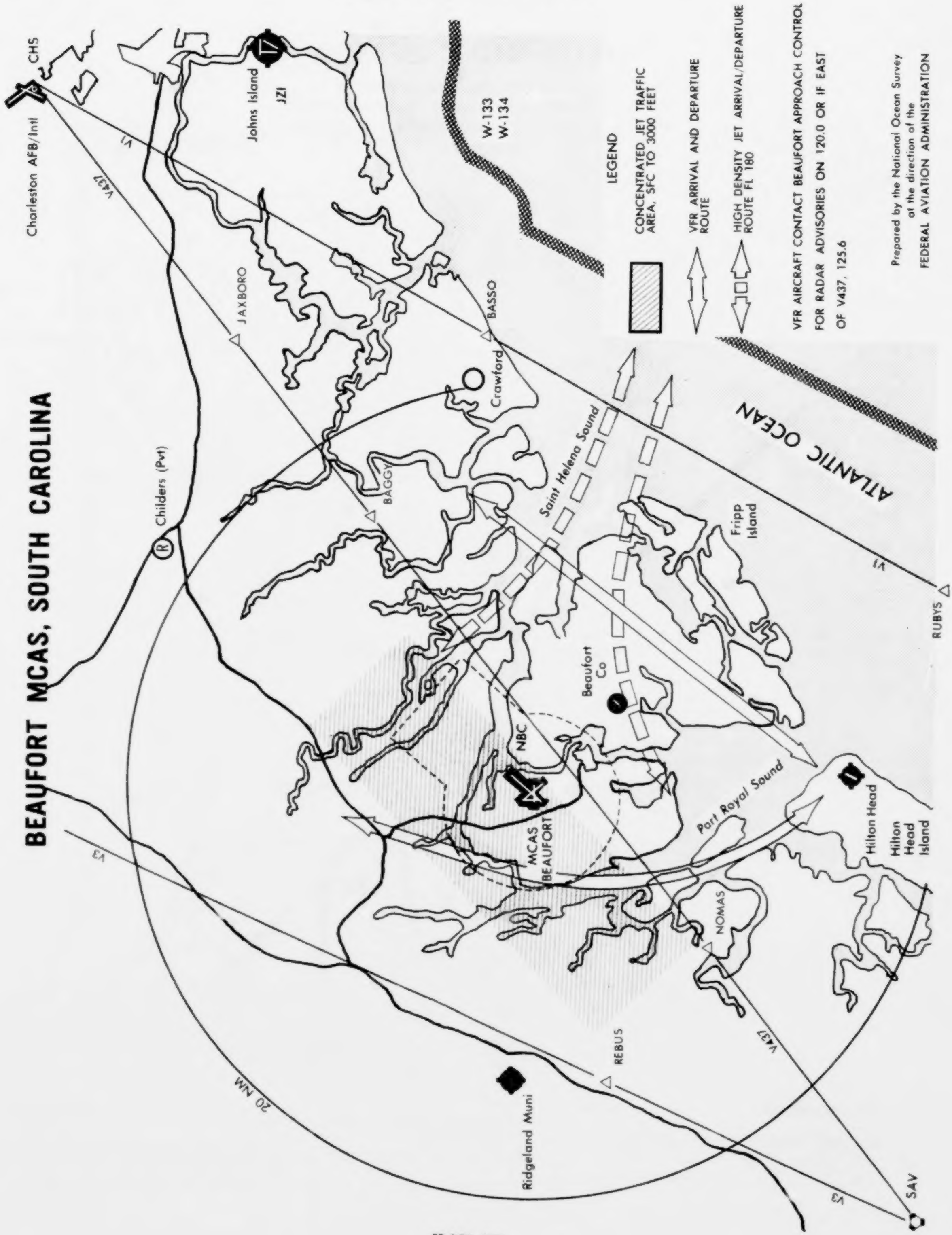
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

BEAUFORT MCAS, SOUTH CAROLINA


Charleston AFB/Intl
CHS
Johns Island
JZI
W-133
W-134
V1
V437
V3
JAXBORO
BASSO
Crawford
BAGGY
Childers (Pvt)
R
Saint Helena Sound
ATLANTIC OCEAN
Fripp Island
RUBYS
Beaufort Co
NBC
MCAS BEAUFORT
Port Royal Sound
Hilton Head
Hilton Head Island
NOMAS
REBUS
Ridgeland Muni
20 NM
SAV

LEGEND

▨ CONCENTRATED JET TRAFFIC AREA, SFC TO 3000 FEET

⇕ VFR ARRIVAL AND DEPARTURE ROUTE

⇕ HIGH DENSITY JET ARRIVAL/DEPARTURE ROUTE FL 180

VFR AIRCRAFT CONTACT BEAUFORT APPROACH CONTROL FOR RADAR ADVISORIES ON 120.0 OR IF EAST OF V437, 125.6

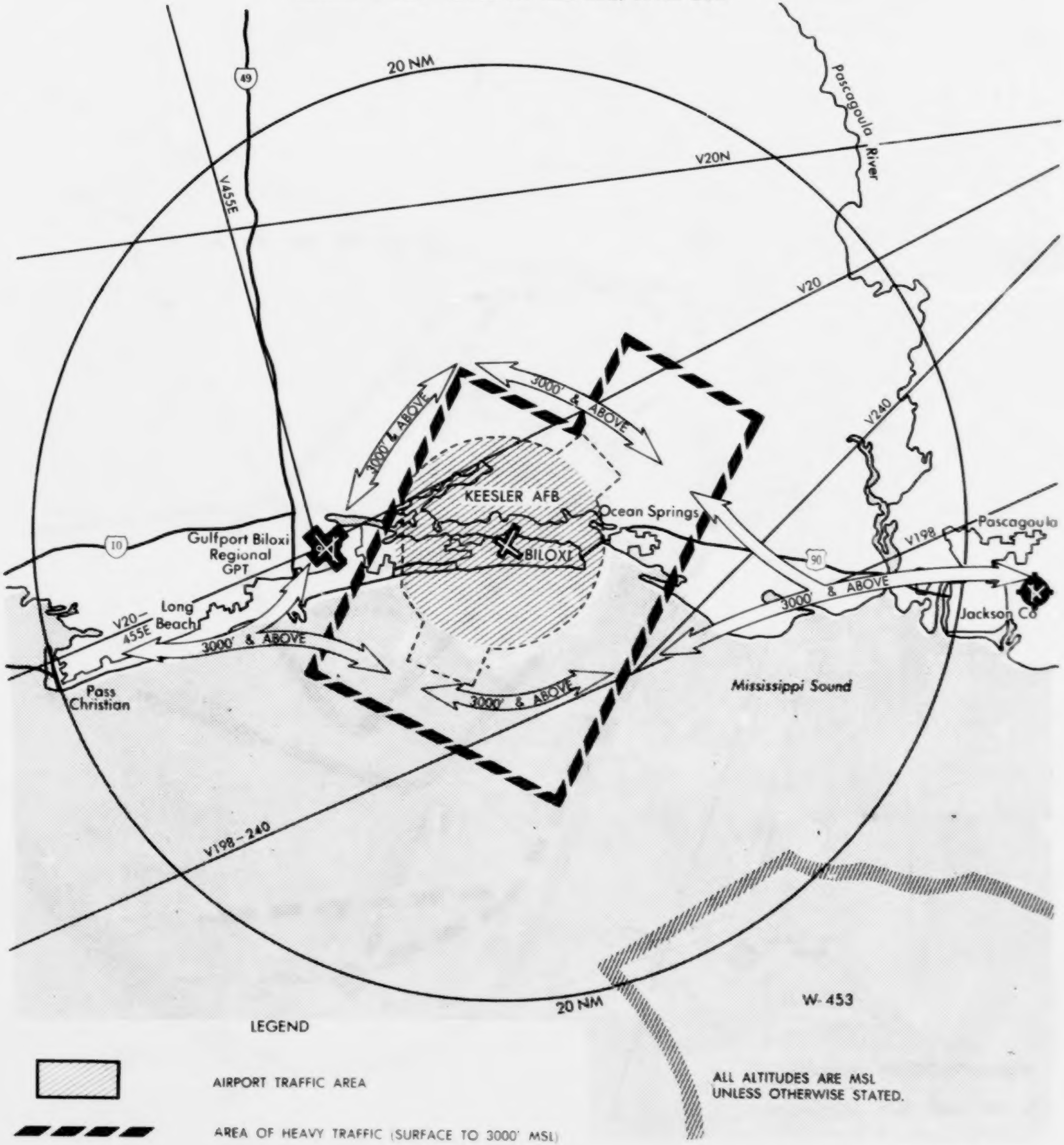
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BILOXI, KEESLER AFB, MISS.

IT IS RECOMMENDED THAT VFR TRAFFIC STAY AT OR ABOVE 3000 FEET, MSL, BECAUSE OF THE HIGH VOLUME OF TRAINING OPERATIONS IN THE AREA. FOR TRAFFIC ADVISORY SERVICE, CONTACT KEESLER TOWER ON 126.2 MHz, 20 NM OUT.


20 NM
49
V455E
V20N
Pascagoula River
V20
V240
3000' & ABOVE
3000' & ABOVE
3000' & ABOVE
3000' & ABOVE
3000' & ABOVE
KEESLER AFB
Ocean Springs
BILOXI
10
Gulfport Biloxi Regional GPT
Long Beach
V20—455E
Pass Christian
90
V198
Pascagoula
Jackson Co
Mississippi Sound
V198-240
20 NM
W-453

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

LEGEND

▨ AIRPORT TRAFFIC AREA

▬ ▬ ▬ ▬ AREA OF HEAVY TRAFFIC (SURFACE TO 3000' MSL)

⟷ 3000' & ABOVE RECOMMENDED VFR ROUTING

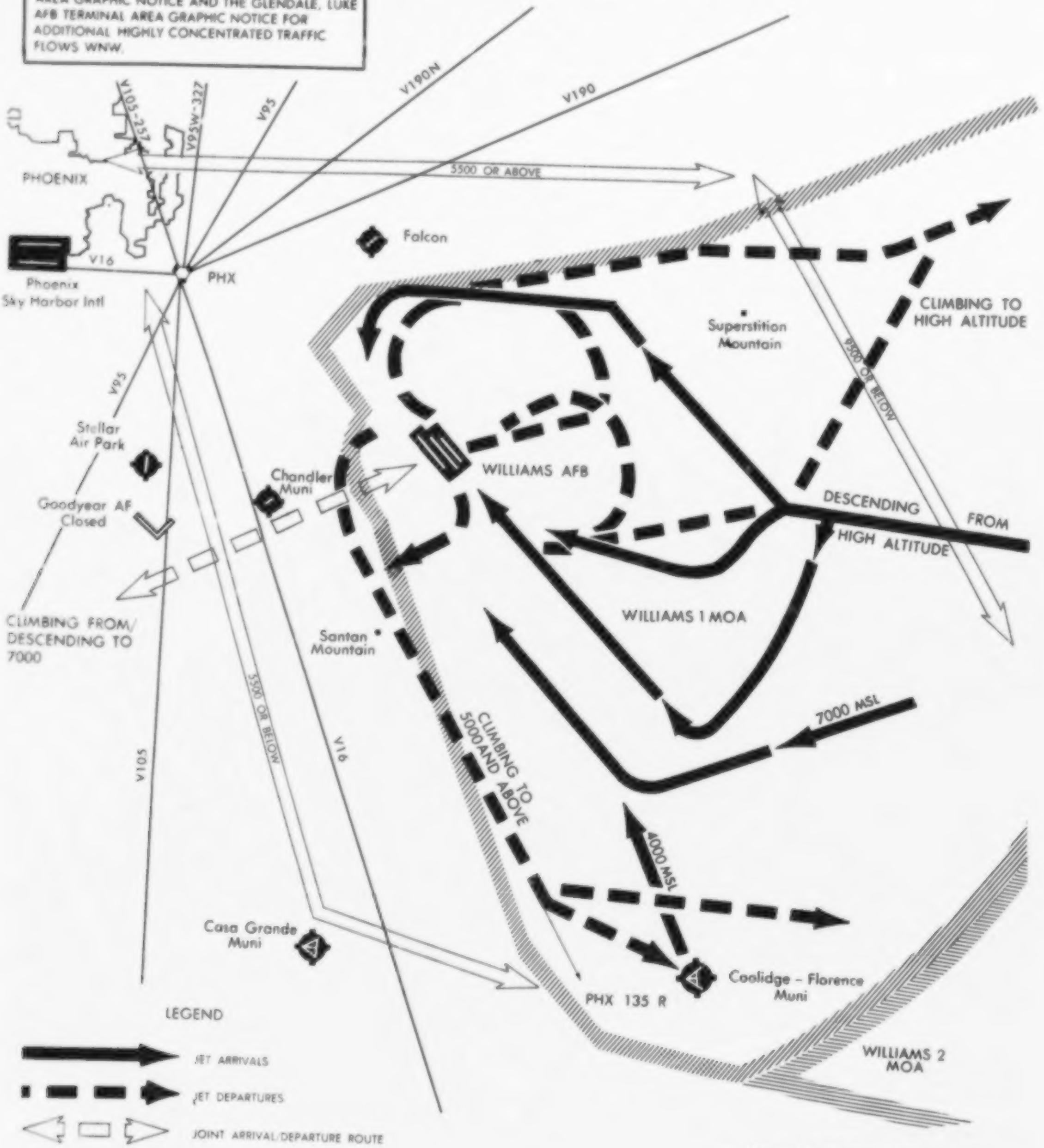
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CHANDLER, WILLIAMS AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE WILLIAMS AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 120.4.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW.


V105-257
V95W-327
V95
V190N
V190
PHOENIX
5500 OR ABOVE
Falcon
V16
Phoenix
Sky Harbor Intl
PHX
CLIMBING TO
HIGH ALTITUDE
Superstition
Mountain
9500 OR BELOW
V95
Stellar
Air Park
Chandler
Muni
WILLIAMS AFB
Goodyear AF
Closed
DESCENDING FROM
HIGH ALTITUDE
CLIMBING FROM/
DESCENDING TO
7000
WILLIAMS 1 MOA
Santan
Mountain
5500 OR BELOW
V16
V105
CLIMBING TO
5000 AND ABOVE
7000 MSL
4000 MSL
Casa Grande
Muni
Coolidge - Florence
Muni
PHX 135 R
WILLIAMS 2
MOA
LEGEND
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

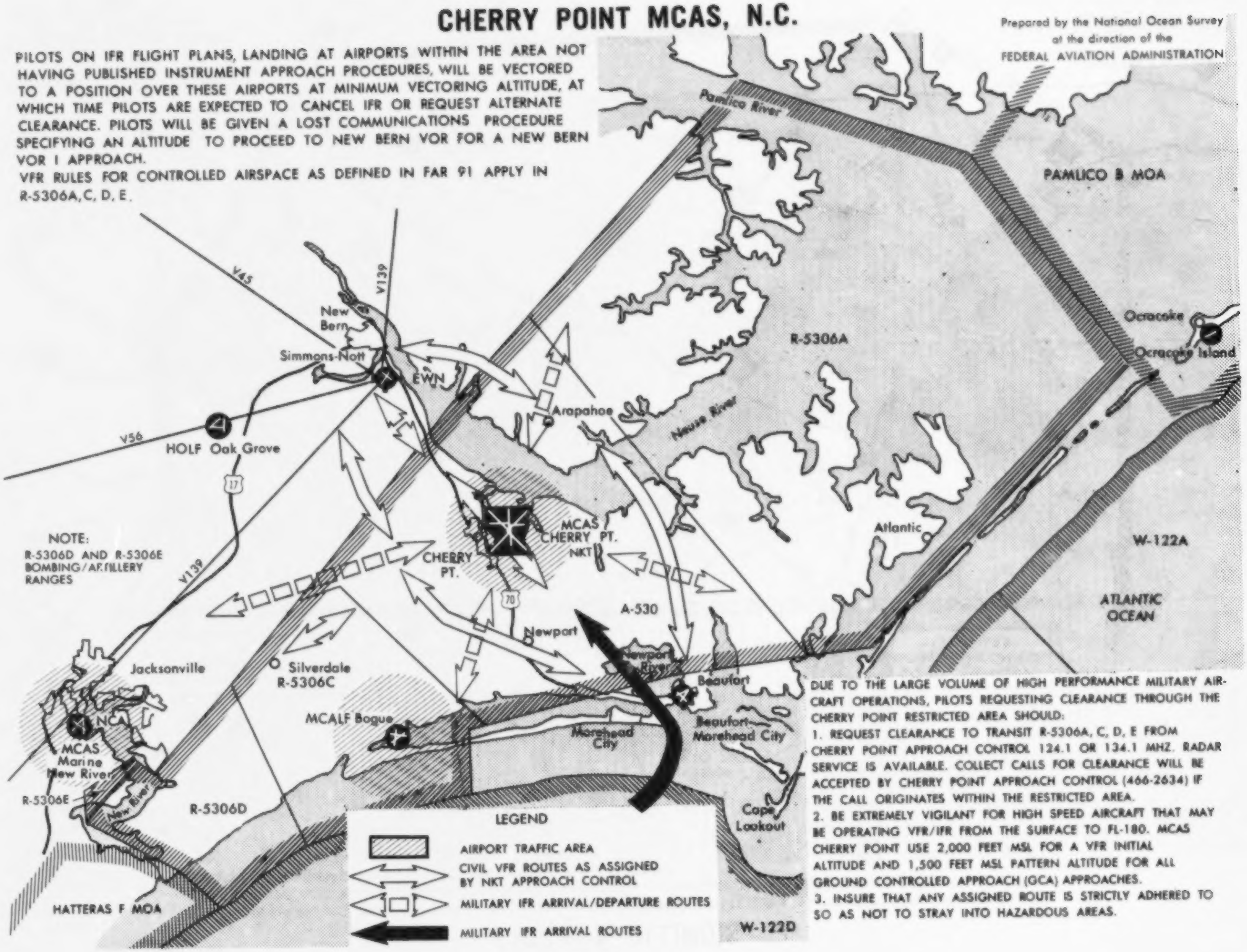
9 AUG 1979

CHERRY POINT MCAS, N.C.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

PILOTS ON IFR FLIGHT PLANS, LANDING AT AIRPORTS WITHIN THE AREA NOT HAVING PUBLISHED INSTRUMENT APPROACH PROCEDURES, WILL BE VECTORED TO A POSITION OVER THESE AIRPORTS AT MINIMUM VECTORING ALTITUDE, AT WHICH TIME PILOTS ARE EXPECTED TO CANCEL IFR OR REQUEST ALTERNATE CLEARANCE. PILOTS WILL BE GIVEN A LOST COMMUNICATIONS PROCEDURE SPECIFYING AN ALTITUDE TO PROCEED TO NEW BERN VOR FOR A NEW BERN VOR I APPROACH.

VFR RULES FOR CONTROLLED AIRSPACE AS DEFINED IN FAR 91 APPLY IN R-5306A, C, D, E.


Pamlico River
PAMLICO B MOA
V45
V139
New Bern
Simmons-Nott
EWN
Arapahoe
R-5306A
Neuse River
Ocracoke
Ocracoke Island
V56
HOLF Oak Grove
17
MCAS CHERRY PT. NKT
CHERRY PT.
Atlantic
W-122A
ATLANTIC OCEAN
70
A-530
Newport
Newport River
Beaufort
Jacksonville
Silverdale
R-5306C
MCALF Bogue
Morehead City
Beaufort-Morehead City
NCA
MCAS Marine New River
R-5306E
New River
R-5306D
Cape Lookout
HATTERAS F MOA
W-122D
LEGEND
AIRPORT TRAFFIC AREA
CIVIL VFR ROUTES AS ASSIGNED BY NKT APPROACH CONTROL
MILITARY IFR ARRIVAL/DEPARTURE ROUTES
MILITARY IFR ARRIVAL ROUTES

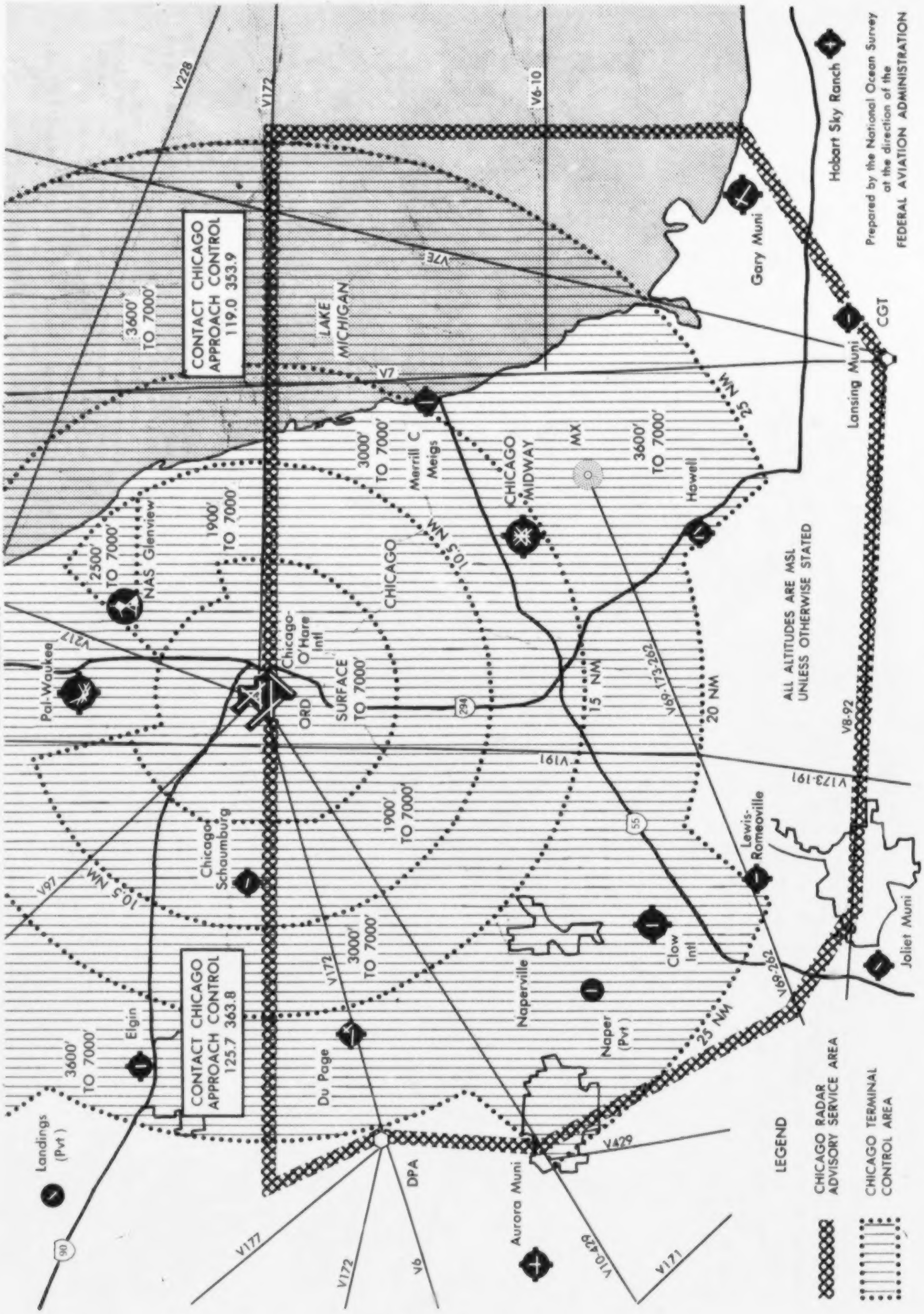
NOTE:
R-5306D AND R-5306E
BOMBING/ARTILLERY
RANGES

DUE TO THE LARGE VOLUME OF HIGH PERFORMANCE MILITARY AIRCRAFT OPERATIONS, PILOTS REQUESTING CLEARANCE THROUGH THE CHERRY POINT RESTRICTED AREA SHOULD:

1. REQUEST CLEARANCE TO TRANSIT R-5306A, C, D, E FROM CHERRY POINT APPROACH CONTROL 124.1 OR 134.1 MHZ. RADAR SERVICE IS AVAILABLE. COLLECT CALLS FOR CLEARANCE WILL BE ACCEPTED BY CHERRY POINT APPROACH CONTROL (466-2634) IF THE CALL ORIGINATES WITHIN THE RESTRICTED AREA.
2. BE EXTREMELY VIGILANT FOR HIGH SPEED AIRCRAFT THAT MAY BE OPERATING VFR/IFR FROM THE SURFACE TO FL-180. MCAS CHERRY POINT USE 2,000 FEET MSL FOR A VFR INITIAL ALTITUDE AND 1,500 FEET MSL PATTERN ALTITUDE FOR ALL GROUND CONTROLLED APPROACH (GCA) APPROACHES.
3. INSURE THAT ANY ASSIGNED ROUTE IS STRICTLY ADHERED TO SO AS NOT TO STRAY INTO HAZARDOUS AREAS.

CHICAGO, ILLINOIS

VFR PILOTS OPERATING ABOVE, BENEATH OR OUTSIDE OF THE TCA, IN THE HATCHED AREA DEPICTED, ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR ADVISORY SERVICE ON 126.8 MHz. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.

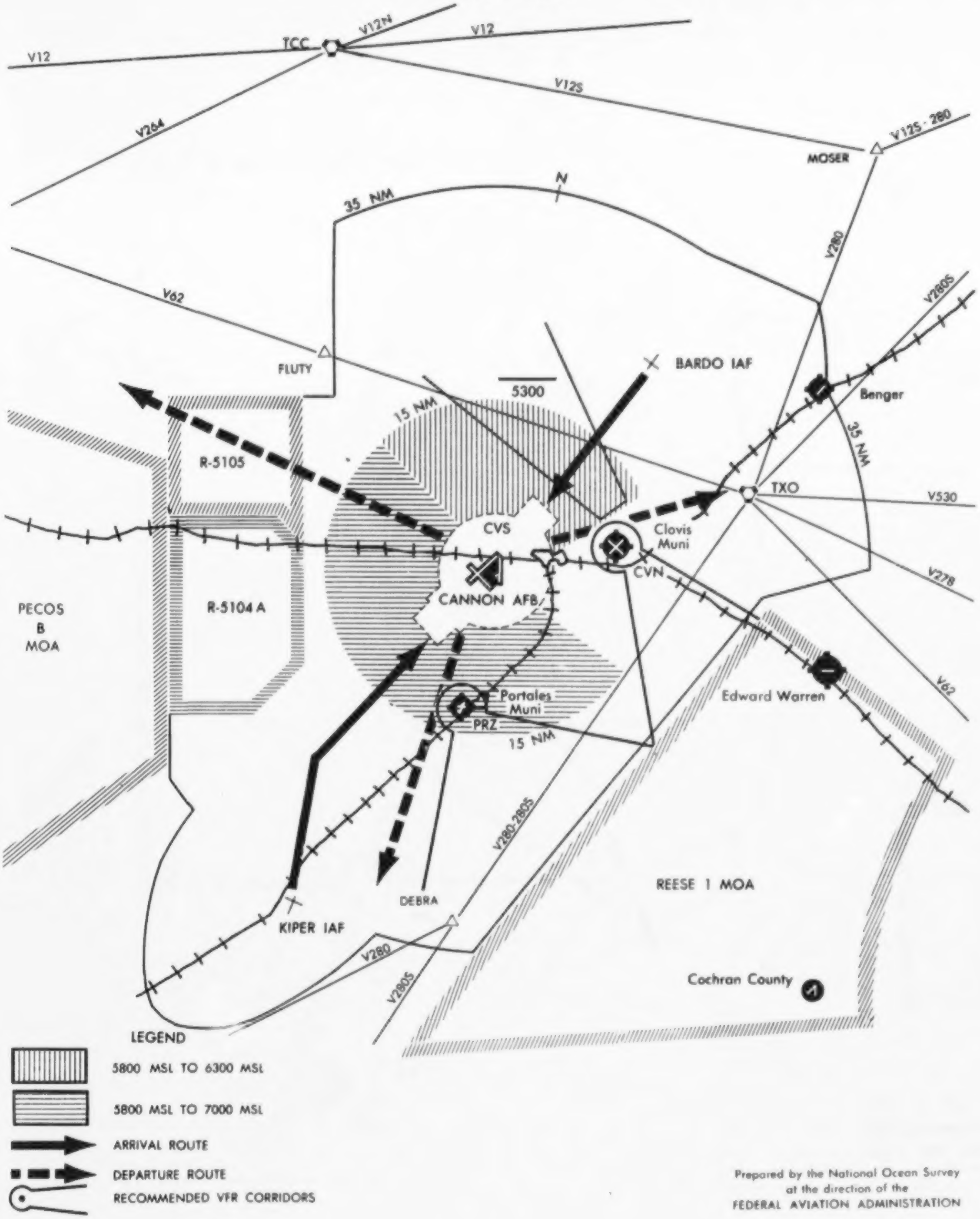

CONTACT CHICAGO APPROACH CONTROL 125.7 363.8
CONTACT CHICAGO APPROACH CONTROL 119.0 353.9
3600' TO 7000'
2500' TO 7000'
1900' TO 7000'
3000' TO 7000'
SURFACE TO 7000'
10.5 NM
15 NM
20 NM
25 NM
LAKE MICHIGAN
Landings (Pvt)
Elgin
Du Page
DPA
Aurora Muni
Naper (Pvt)
Naperville
Clow Intl
Joliet Muni
Lewis-Romeoville
Chicago Schaumburg
Chicago-O'Hare Intl
ORD
Pal-Waukee
NAS Glenview
CHICAGO
CHICAGO MIDWAY
MX
Merrill C Meigs
Howell
Lansing Muni
CGT
Gary Muni
Hobart Sky Ranch
V97
V172
V177
V6
V10-429
V429
V171
V69-262
V69-173-262
V173-191
V191
V8-92
V217
V228
V7
V7E
V6-10
90
294
55
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
LEGEND
CHICAGO RADAR ADVISORY SERVICE AREA
CHICAGO TERMINAL CONTROL AREA

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CLOVIS, NEW MEXICO
CANNON AFB


V12
TCC
V12N
V12
V12S
V264
MOSER
V12S-280
35 NM
N
V280
V62
FLUTY
V280S
BARDO IAF
5300
15 NM
Benger
35 NM
R-5105
TXO
V530
CVS
Clovis
Muni
CVN
V278
PECOS
B
MOA
R-5104 A
CANNON AFB
Edward Warren
Portales
Muni
PRZ
15 NM
V62
V280-280S
REESE 1 MOA
DEBRA
KIPER IAF
V280
V280S
Cochran County
LEGEND
5800 MSL TO 6300 MSL
5800 MSL TO 7000 MSL
ARRIVAL ROUTE
DEPARTURE ROUTE
RECOMMENDED VFR CORRIDORS

Prepared by the National Ocean Survey
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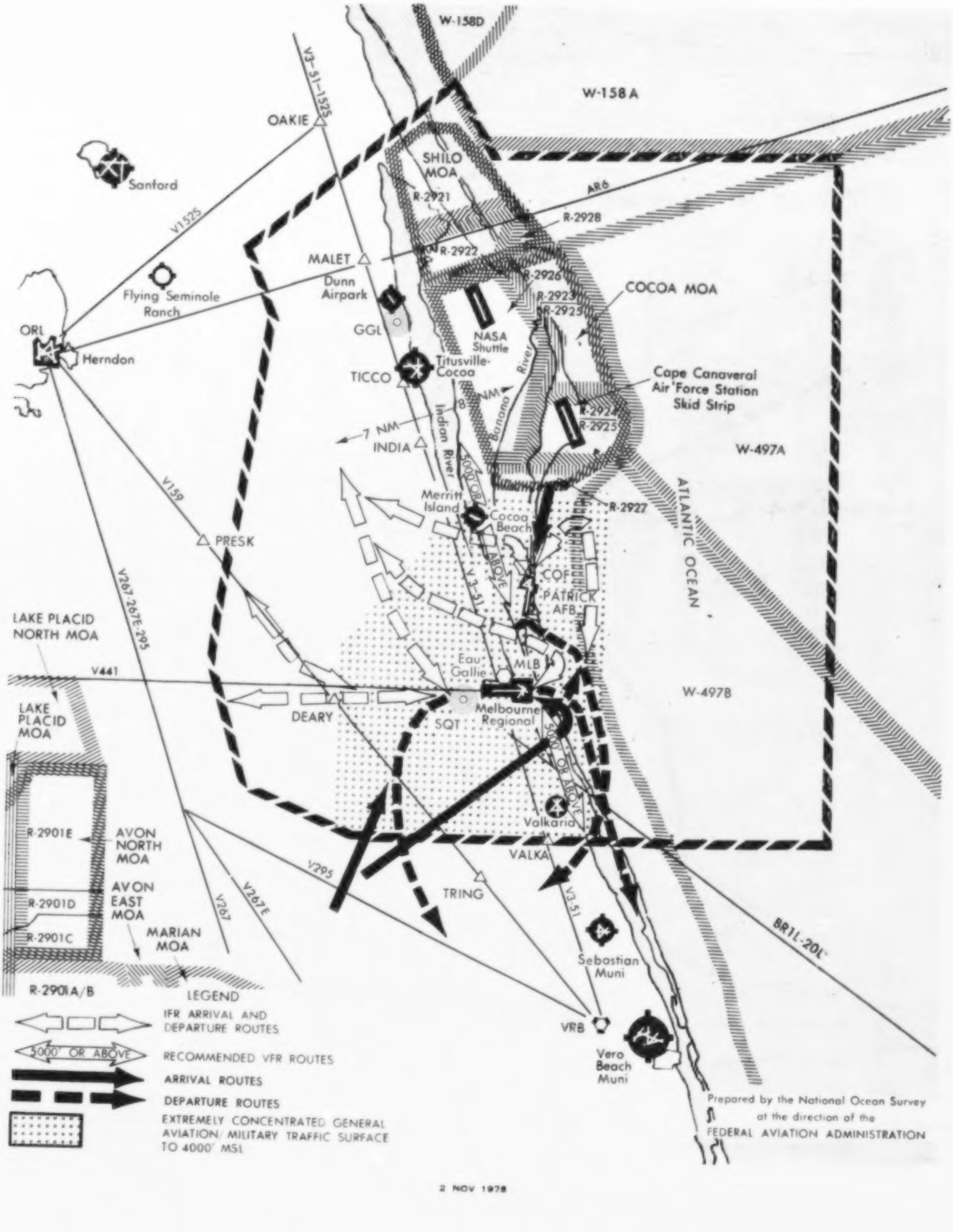
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, PATRICK AFB, FLA.

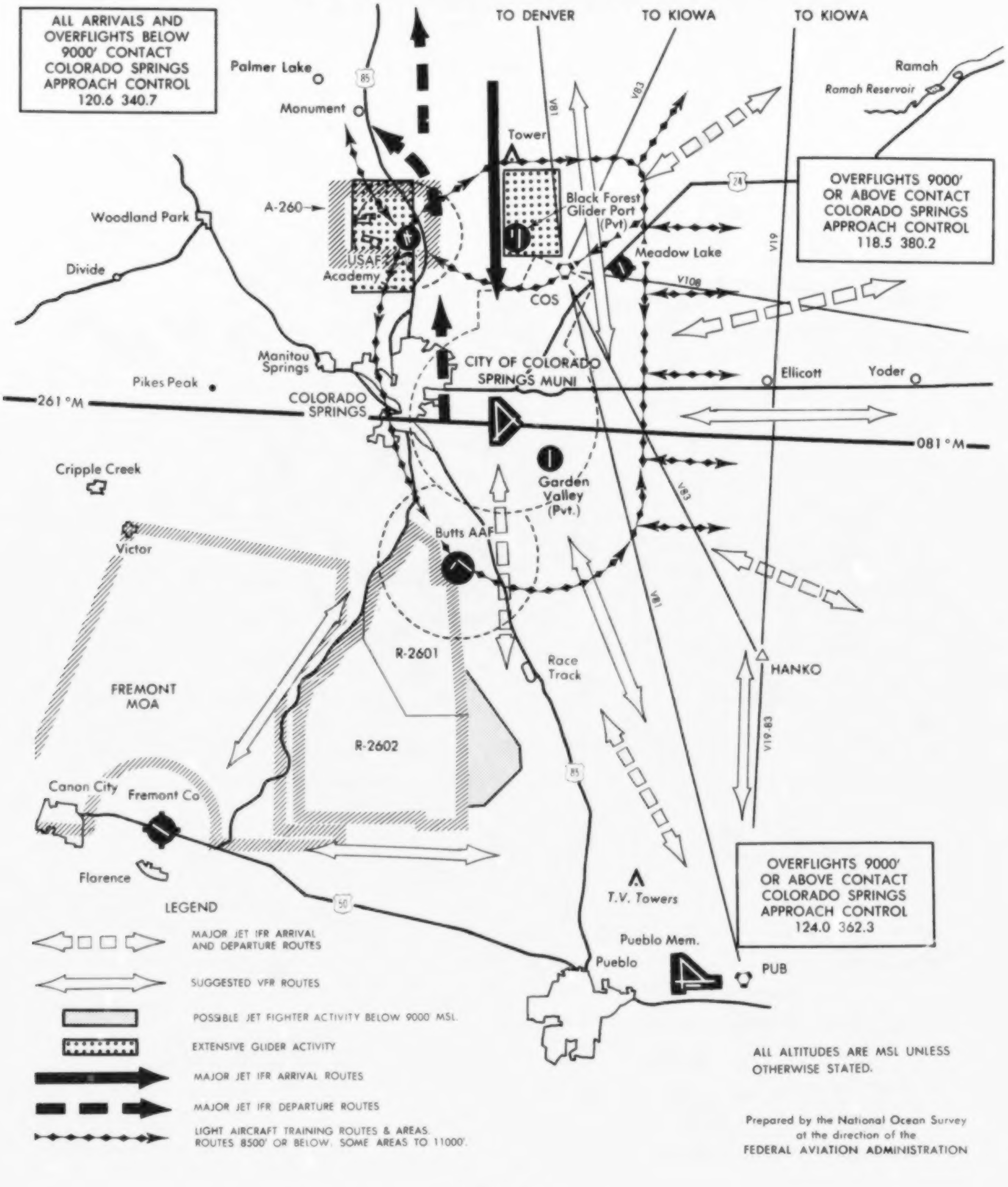

W-158D
W-158 A
V3-51-152S
OAKIE
Sanford
SHILO MOA
R-2921
AR6
R-2928
V152S
MALET
R-2922
Dunn Airpark
R-2926
Flying Seminole Ranch
R-2923
R-2925
COCOA MOA
GGL
NASA Shuttle
ORL
Herndon
Titusville-Cocoa
TICCO
Banana River
Cape Canaveral Air Force Station Skid Strip
8 NM
R-2924
R-2925
7 NM
INDIA
Indian River
W-497A
5000' OR ABOVE
R-2927
Merritt Island
Cocoa Beach
V159
PRESK
ATLANTIC OCEAN
V3-51
ABOVE
COF
PATRICK AFB
V267-267E-295
LAKE PLACID NORTH MOA
Eau Gallie
MLB
V441
W-497B
LAKE PLACID MOA
DEARY
SQT
Melbourne Regional
5000' OR ABOVE
R-2901E
AVON NORTH MOA
Valkaria
VALKA
V295
AVON EAST MOA
R-2901D
V267E
TRING
V3-51
R-2901C
V267
MARIAN MOA
BR11L-20L
Sebastian Muni
R-2901A/B
LEGEND
IFR ARRIVAL AND DEPARTURE ROUTES
5000' OR ABOVE
RECOMMENDED VFR ROUTES
ARRIVAL ROUTES
DEPARTURE ROUTES
EXTREMELY CONCENTRATED GENERAL AVIATION/ MILITARY TRAFFIC SURFACE TO 4000' MSL
VRB
Vero Beach Muni

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO


TO DENVER
TO KIOWA
TO KIOWA
Palmer Lake
85
Monument
Ramah
Ramah Reservoir
V81
V83
Tower
A-260
Black Forest Glider Port (Pvt)
24
Woodland Park
USAF Academy
Meadow Lake
V19
Divide
COS
V108
Manitou Springs
CITY OF COLORADO SPRINGS MUNI
Ellicott
Yoder
Pikes Peak
261°M
COLORADO SPRINGS
081°M
Cripple Creek
Garden Valley (Pvt.)
V83
Victor
Butts AAF
V81
R-2601
Race Track
HANKO
FREMONT MOA
V19-83
R-2602
85
Canon City
Fremont Co
Florence
50
T.V. Towers
Pueblo Mem.
Pueblo
PUB

ALL ARRIVALS AND
OVERFLIGHTS BELOW
9000′ CONTACT
COLORADO SPRINGS
APPROACH CONTROL
120.6 340.7

OVERFLIGHTS 9000′
OR ABOVE CONTACT
COLORADO SPRINGS
APPROACH CONTROL
118.5 380.2

OVERFLIGHTS 9000′
OR ABOVE CONTACT
COLORADO SPRINGS
APPROACH CONTROL
124.0 362.3

LEGEND

- MAJOR JET IFR ARRIVAL AND DEPARTURE ROUTES
- SUGGESTED VFR ROUTES
- POSSIBLE JET FIGHTER ACTIVITY BELOW 9000 MSL.
- EXTENSIVE GLIDER ACTIVITY
- MAJOR JET IFR ARRIVAL ROUTES
- MAJOR JET IFR DEPARTURE ROUTES
- LIGHT AIRCRAFT TRAINING ROUTES & AREAS. ROUTES 8500′ OR BELOW. SOME AREAS TO 11000′.

ALL ALTITUDES ARE MSL UNLESS
OTHERWISE STATED.

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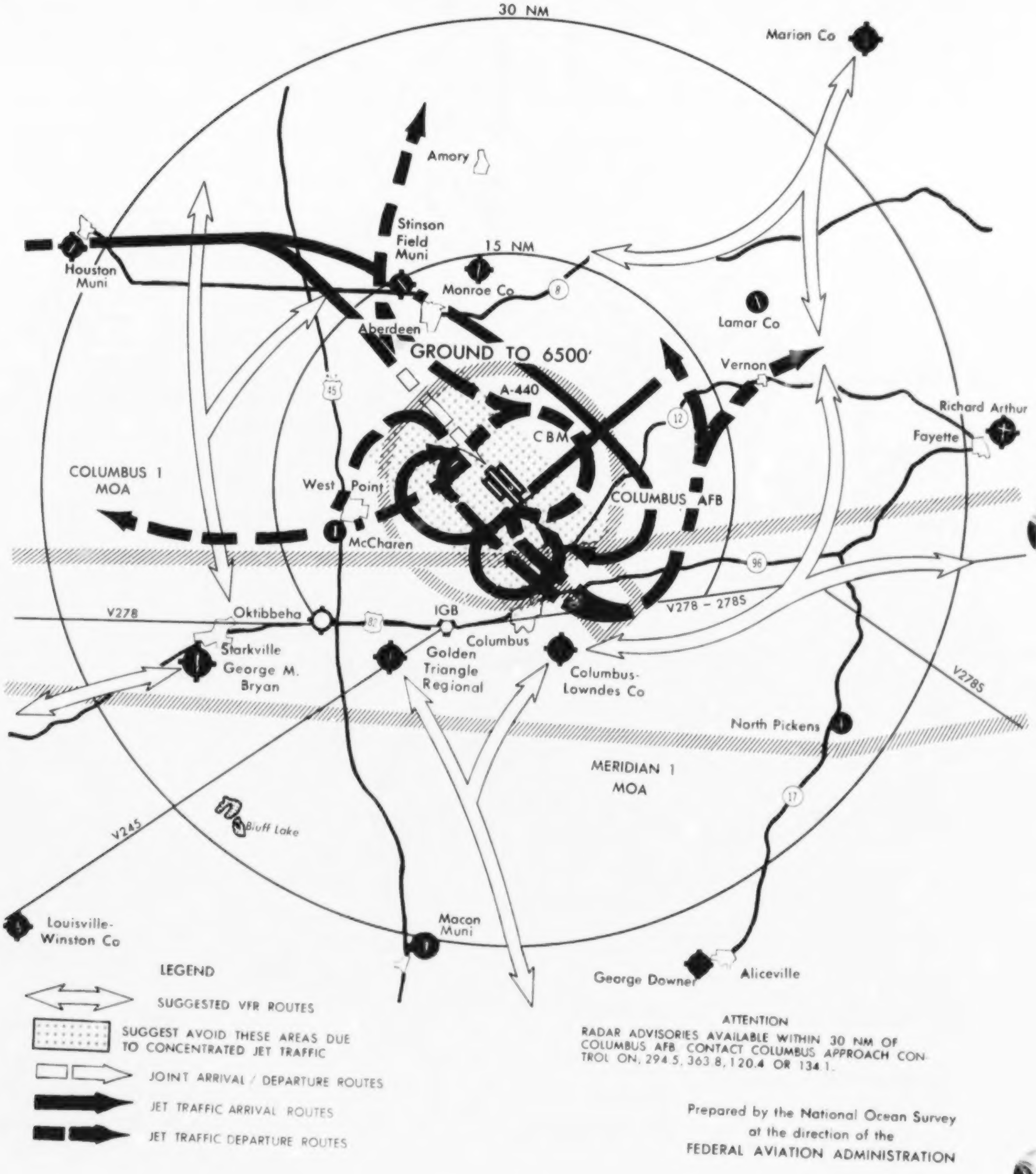
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI


30 NM
Marion Co
Amory
Stinson Field Muni
15 NM
Houston Muni
Monroe Co
8
Lamar Co
Aberdeen
GROUND TO 6500′
Vernon
A-440
45
12
Richard Arthur
C B M
Fayette
COLUMBUS 1 MOA
West Point
COLUMBUS AFB
McCharen
96
V278
Oktibbeha
82
IGB
V278 – 278S
Starkville George M. Bryan
Golden Triangle Regional
Columbus
Columbus-Lowndes Co
V278S
North Pickens
MERIDIAN 1 MOA
17
V245
Bluff Lake
Louisville-Winston Co
Macon Muni
George Downer
Aliceville
LEGEND
SUGGESTED VFR ROUTES
SUGGEST AVOID THESE AREAS DUE TO CONCENTRATED JET TRAFFIC
JOINT ARRIVAL / DEPARTURE ROUTES
JET TRAFFIC ARRIVAL ROUTES
JET TRAFFIC DEPARTURE ROUTES

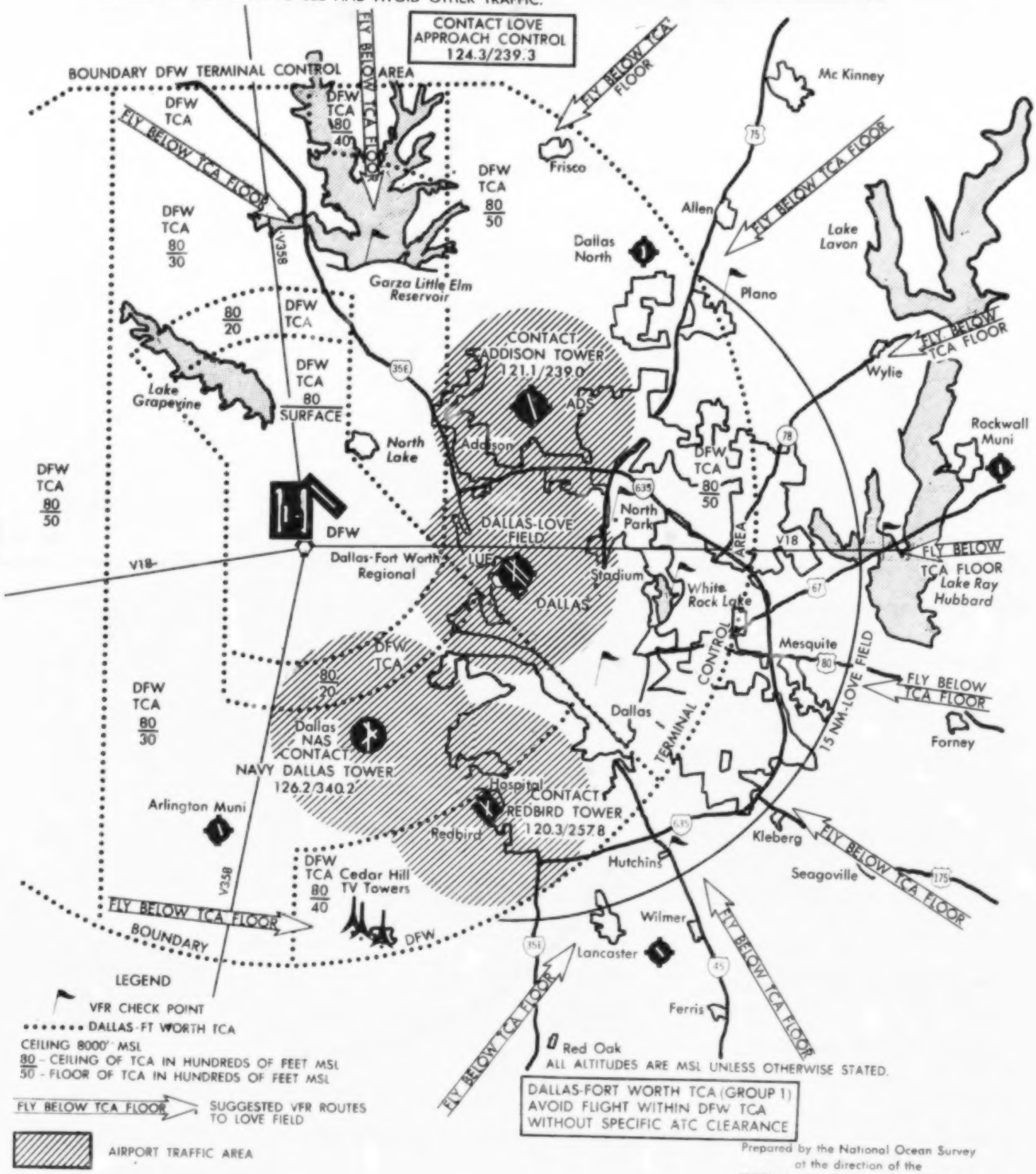
ATTENTION
RADAR ADVISORIES AVAILABLE WITHIN 30 NM OF COLUMBUS AFB. CONTACT COLUMBUS APPROACH CONTROL ON, 294.5, 363.8, 120.4 OR 134.1.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

DALLAS LOVE FIELD, TEXAS

LOVE TOWER WILL PROVIDE RADAR SERVICE WITHIN 15 MILES OF LOVE FIELD EXCLUDING THE DFW TCA, ADDISON, REDBIRD, AND NAS DALLAS AIRPORT TRAFFIC AREAS. REGIONAL APPROACH CONTROL WILL PROVIDE RADAR SERVICE ELSEWHERE. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUED VIGILANCE TO SEE AND AVOID OTHER TRAFFIC.


CONTACT LOVE APPROACH CONTROL 124.3/239.3
BOUNDARY DFW TERMINAL CONTROL AREA
FLY BELOW TCA FLOOR
DFW TCA 80/40
DFW TCA 80/50
DFW TCA 80/30
DFW TCA 80/20
DFW TCA 80 SURFACE
Mc Kinney
Frisco
75
Allen
Lake Lavon
Dallas North
Plano
Garza Little Elm Reservoir
V358
Lake Grapevine
CONTACT ADDISON TOWER 121.1/239.0
ADS
Addison
35E
North Lake
Wylie
78
Rockwall Muni
635
North Park
DALLAS-LOVE FIELD
LUF
DALLAS
Stadium
DFW
V18
Dallas-Fort Worth Regional
White Rock Lake
FLY BELOW TCA FLOOR
67
Lake Ray Hubbard
Mesquite
80
TERMINAL CONTROL AREA
15 NM-LOVE FIELD
Dallas
Forney
Dallas NAS
CONTACT NAVY DALLAS TOWER 126.2/340.2
Hospital
CONTACT REDBIRD TOWER 120.3/257.8
Redbird
Arlington Muni
Kleberg
Hutchins
Seagoville
175
Cedar Hill TV Towers
Wilmer
BOUNDARY
DFW
Lancaster
45
Ferris
Red Oak
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
DALLAS-FORT WORTH TCA (GROUP 1) AVOID FLIGHT WITHIN DFW TCA WITHOUT SPECIFIC ATC CLEARANCE
LEGEND
VFR CHECK POINT
DALLAS-FT WORTH TCA
CEILING 8000' MSL
80 - CEILING OF TCA IN HUNDREDS OF FEET MSL
50 - FLOOR OF TCA IN HUNDREDS OF FEET MSL
FLY BELOW TCA FLOOR
SUGGESTED VFR ROUTES TO LOVE FIELD
AIRPORT TRAFFIC AREA

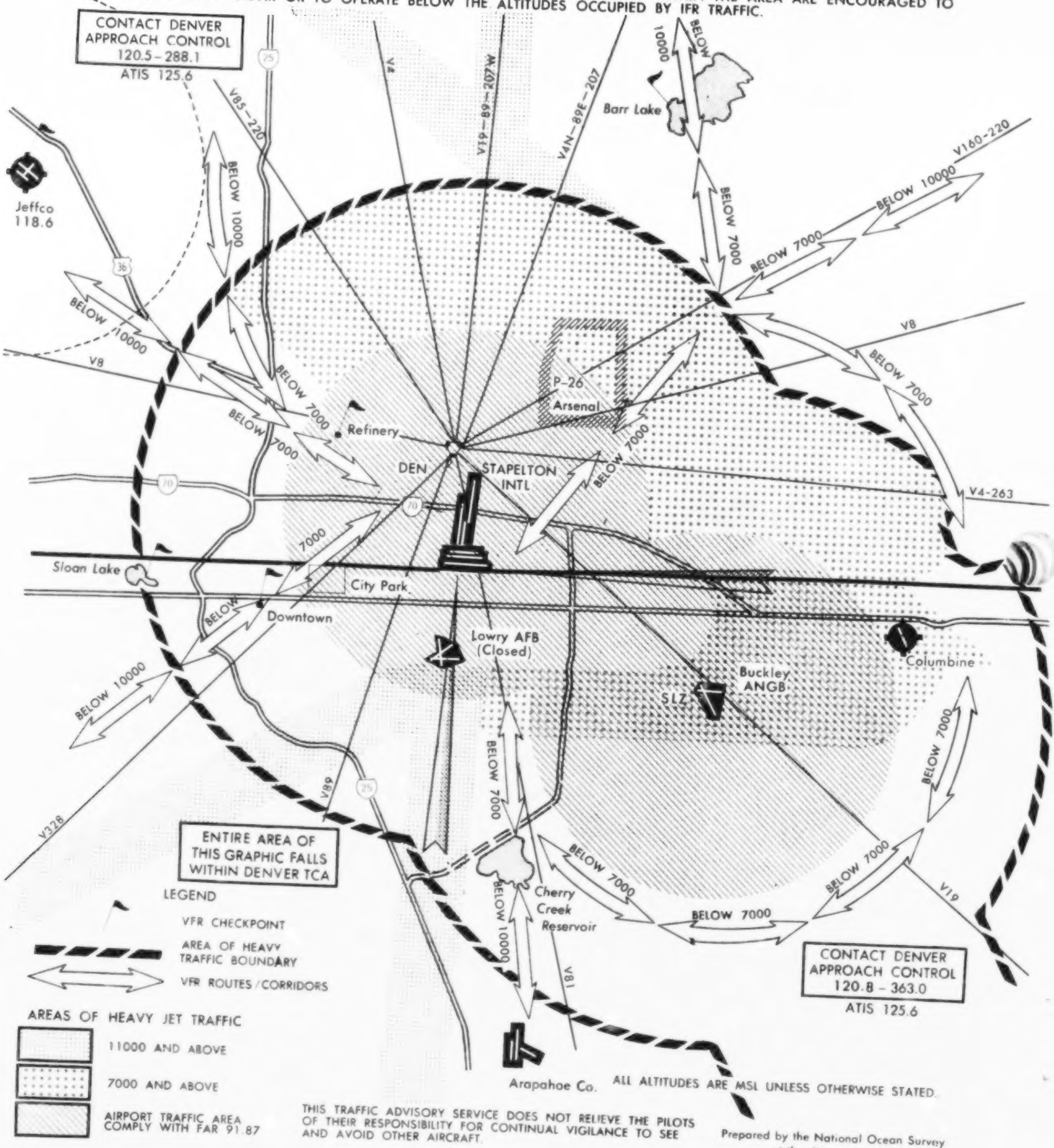
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

DENVER, COLORADO

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DENVER TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT DENVER RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.



CONTACT DENVER APPROACH CONTROL 120.5 – 288.1
ATIS 125.6
Jeffco 118.6
25
36
V85–220
V4
V19–89–207W
VAN–89E–207
BELOW 10000
Barr Lake
V160–220
BELOW 10000
BELOW 7000
BELOW 10000
BELOW 7000
BELOW 10000
V8
BELOW 7000
BELOW 7000
P-26
Arsenal
V8
BELOW 7000
Refinery
DEN
STAPELTON INTL
BELOW 7000
V4-263
70
70
Sloan Lake
7000
City Park
BELOW
Downtown
BELOW 10000
Lowry AFB (Closed)
Buckley ANGB
SLZ
Columbine
BELOW 7000
BELOW 7000
BELOW 7000
V89
25
V328
ENTIRE AREA OF THIS GRAPHIC FALLS WITHIN DENVER TCA
BELOW 7000
BELOW 10000
Cherry Creek Reservoir
BELOW 7000
BELOW 7000
V19
V81
Arapahoe Co.
CONTACT DENVER APPROACH CONTROL 120.8 – 363.0
ATIS 125.6
LEGEND
VFR CHECKPOINT
AREA OF HEAVY TRAFFIC BOUNDARY
VFR ROUTES / CORRIDORS
AREAS OF HEAVY JET TRAFFIC
11000 AND ABOVE
7000 AND ABOVE
AIRPORT TRAFFIC AREA COMPLY WITH FAR 91.87

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

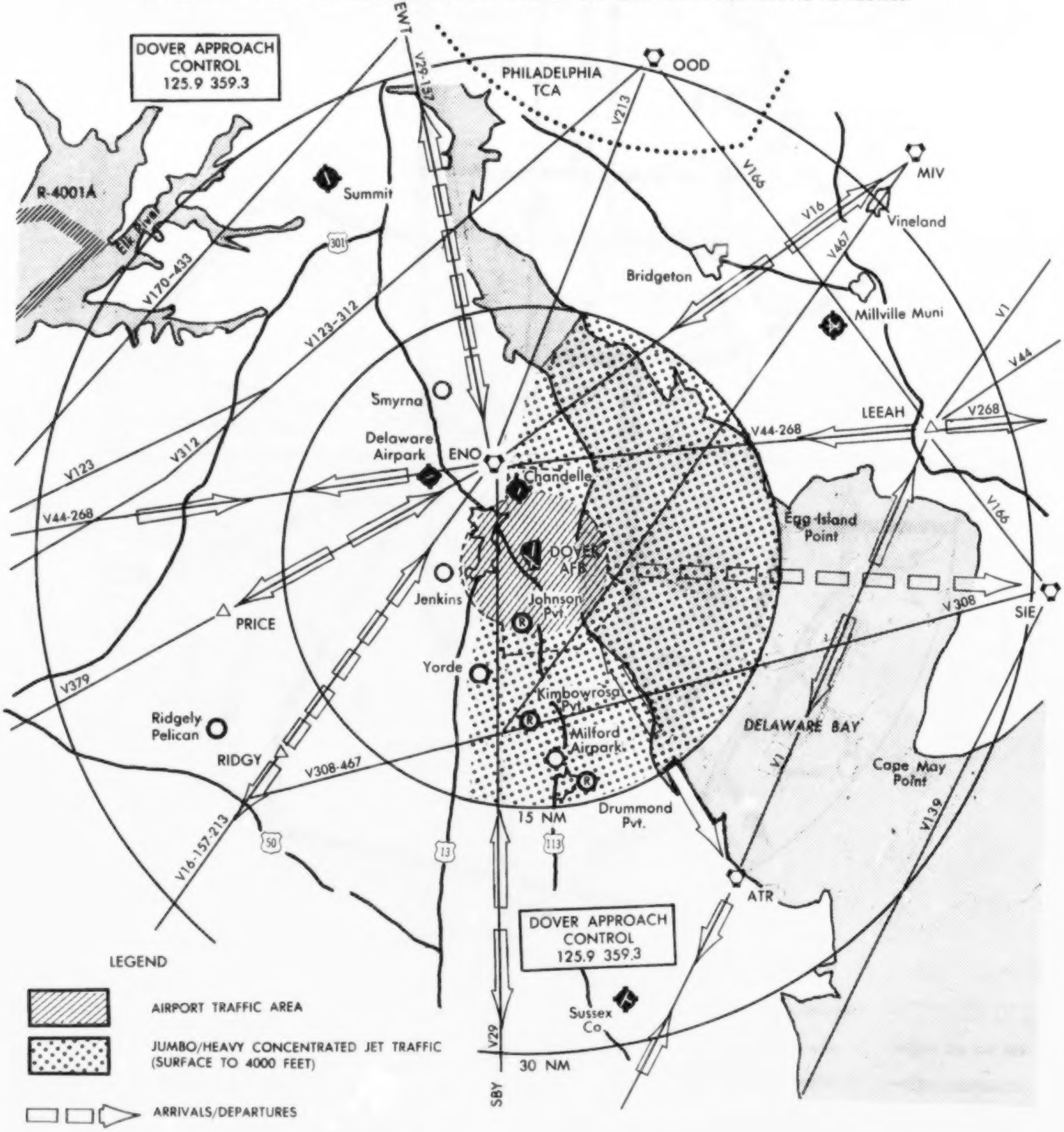
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

DOVER AFB, DELAWARE

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DOVER RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT DOVER APPROACH CONTROL ON 125.9 - 359.3 FOR TRAFFIC ADVISORIES.


DOVER APPROACH CONTROL 125.9 359.3
EWT
V29-157
PHILADELPHIA TCA
OOD
V213
V166
MIV
V16
Vineland
V467
R-4001A
Elk River
Summit
301
V170-433
V123-312
Bridgeton
Millville Muni
V1
V44
Smyrna
Delaware Airpark
ENO
Chandelle
V123
V312
V44-268
LEEAH
V268
V166
Egg Island Point
DOVER AFB
Jenkins
Johnson Pvt.
PRICE
V308
SIE
V379
Yorde
Kimbowrosa Pvt.
Ridgely Pelican
DELAWARE BAY
Milford Airpark
RIDGY
V308-467
Cape May Point
Drummond Pvt.
15 NM
V16-157-213
50
13
113
V139
ATR
DOVER APPROACH CONTROL 125.9 359.3
Sussex Co.
V29
30 NM
SBY

LEGEND

▨ AIRPORT TRAFFIC AREA

░ JUMBO/HEAVY CONCENTRATED JET TRAFFIC (SURFACE TO 4000 FEET)

▭ ▭ ⇨ ARRIVALS/DEPARTURES

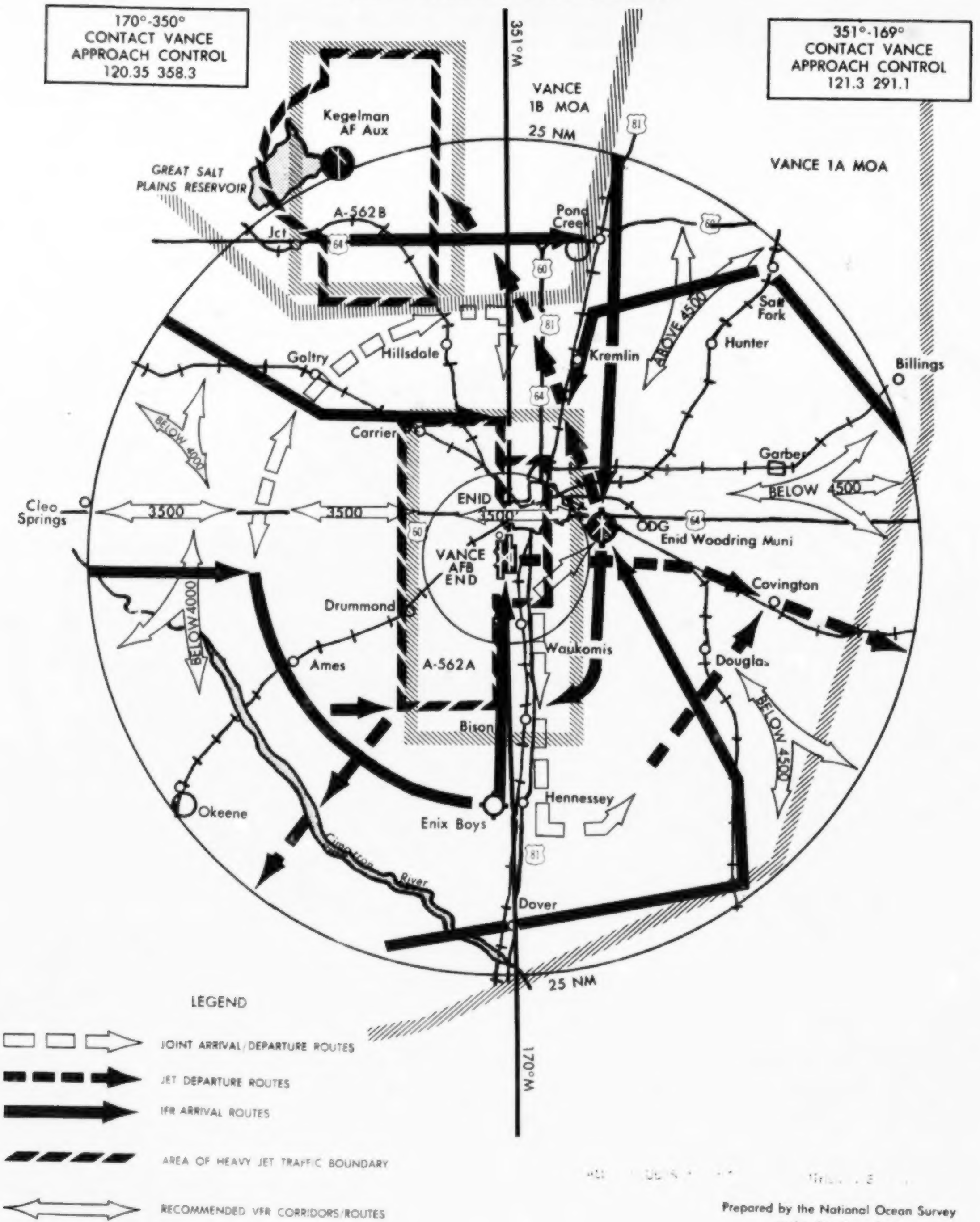
⇨ OVERFLIGHTS

•••••••••••• PHILADELPHIA TCA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ENID - VANCE, OKLAHOMA


351°M
VANCE 1B MOA
25 NM
VANCE 1A MOA
Kegelman AF Aux
GREAT SALT PLAINS RESERVOIR
A-562B
Jct
64
Pond Creek
60
81
Salt Fork
Hunter
Billings
Kremlin
ABOVE 4500
Goltry
Hillsdale
BELOW 4000
Carrier
Garber
BELOW 4500
Cleo Springs
3500
3500
ENID
3500'
ODG
Enid Woodring Muni
VANCE AFB END
Covington
Drummond
BELOW 4000
Waukomis
Douglas
BELOW 4500
Ames
A-562A
Bison
Okeene
Enix Boys
Hennessey
Cimarron River
Dover
25 NM
170°M

170°-350°
CONTACT VANCE
APPROACH CONTROL
120.35 358.3

351°-169°
CONTACT VANCE
APPROACH CONTROL
121.3 291.1

LEGEND

JOINT ARRIVAL/DEPARTURE ROUTES

JET DEPARTURE ROUTES

IFR ARRIVAL ROUTES

AREA OF HEAVY JET TRAFFIC BOUNDARY

RECOMMENDED VFR CORRIDORS/ROUTES

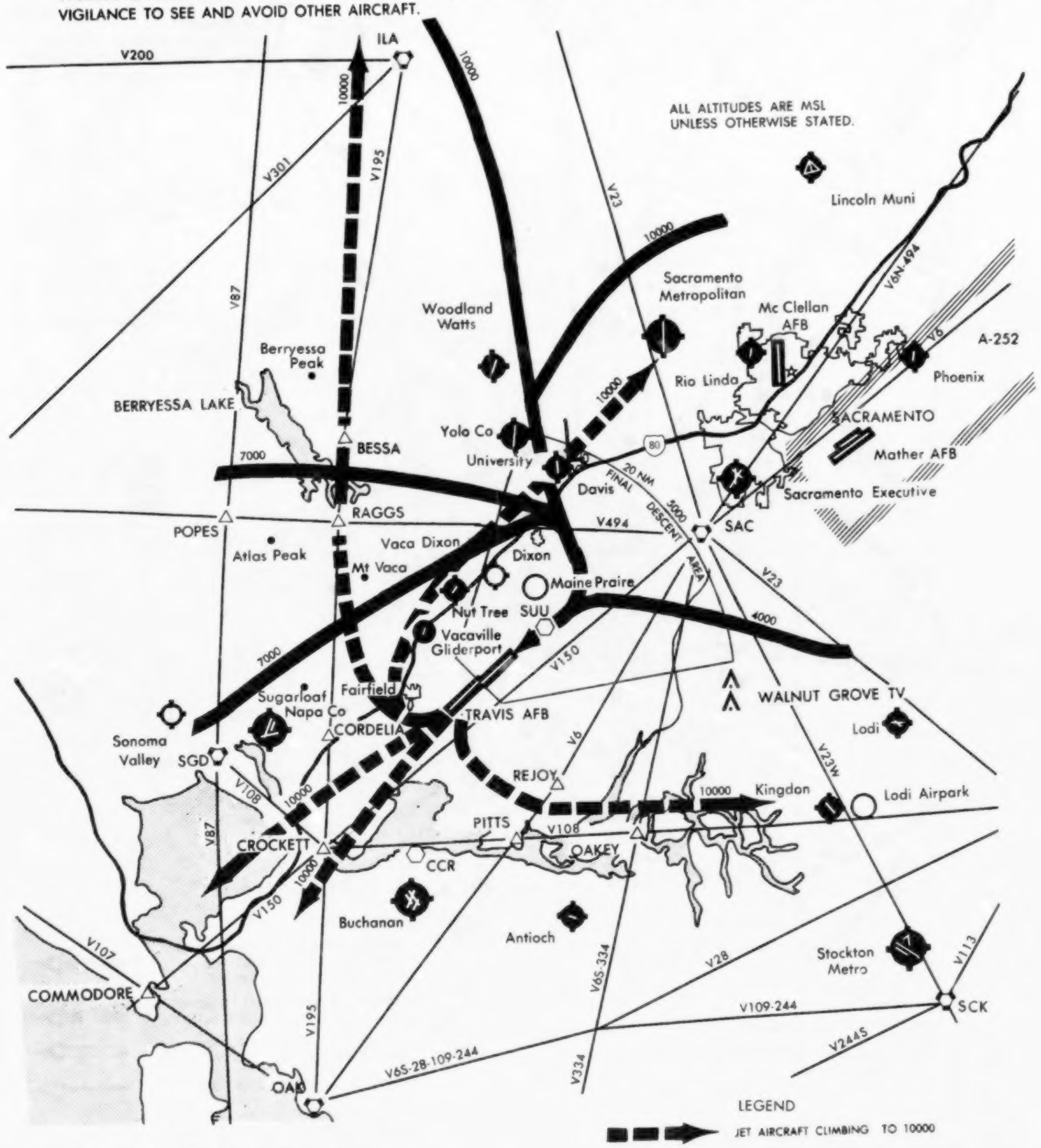
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FAIRFIELD, TRAVIS AFB, CALIF.

THIS CHART SHOWS CONCENTRATED IFR TRAFFIC FLOWS IN THE TRAVIS AFB AREA. IT HAS BEEN PREPARED TO ASSIST VFR PILOTS IN PLANNING FLIGHT IN THE AREA. VFR PILOTS INTENDING TO OPERATE IN THE AREA ARE ENCOURAGED TO CONTACT TRAVIS APPROACH CONTROL ON 119.9 OR 126.6 MHz FOR RADAR TRAFFIC ADVISORY SERVICE, WHICH WILL BE PROVIDED ON A WORKLOAD PERMITTING BASIS. TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.


ILA
V200
10000
10000
V301
V195
V23
ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.
Lincoln Muni
10000
V6N-494
Sacramento
Metropolitan
Mc Clellan
AFB
A-252
V87
Woodland
Watts
Berryessa
Peak
Rio Linda
Phoenix
V6
10000
BERRYESSA LAKE
SACRAMENTO
Yolo Co
BESSA
80
7000
University
Mather AFB
20 NM
FINAL
Davis
DESCENT
5000
AREA
Sacramento Executive
RAGGS
POPES
V494
SAC
Atlas Peak
Vaca Dixon
Dixon
Mt Vaca
Maine Praire
V23
Nut Tree
SUU
Vacaville
Gliderport
4000
V150
7000
WALNUT GROVE TV
Sugarloaf
Fairfield
Napa Co
TRAVIS AFB
Sonoma
Valley
CORDELIA
Lodi
SGD
V6
V23W
REJOY
V108
10000
10000
Kingdon
Lodi Airpark
V87
PITTS
V108
CROCKETT
OAKEY
10000
CCR
V150
Buchanan
Antioch
V107
Stockton
Metro
V113
V28
V6S-334
COMMODORE
V109-244
SCK
V195
V334
V6S-28-109-244
V244S
OAK

LEGEND

▬ ▬ ▬ ➡ JET AIRCRAFT CLIMBING TO 10000

⬅ JET AIRCRAFT DESCENDING

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL AREA GRAPHIC NOTICE

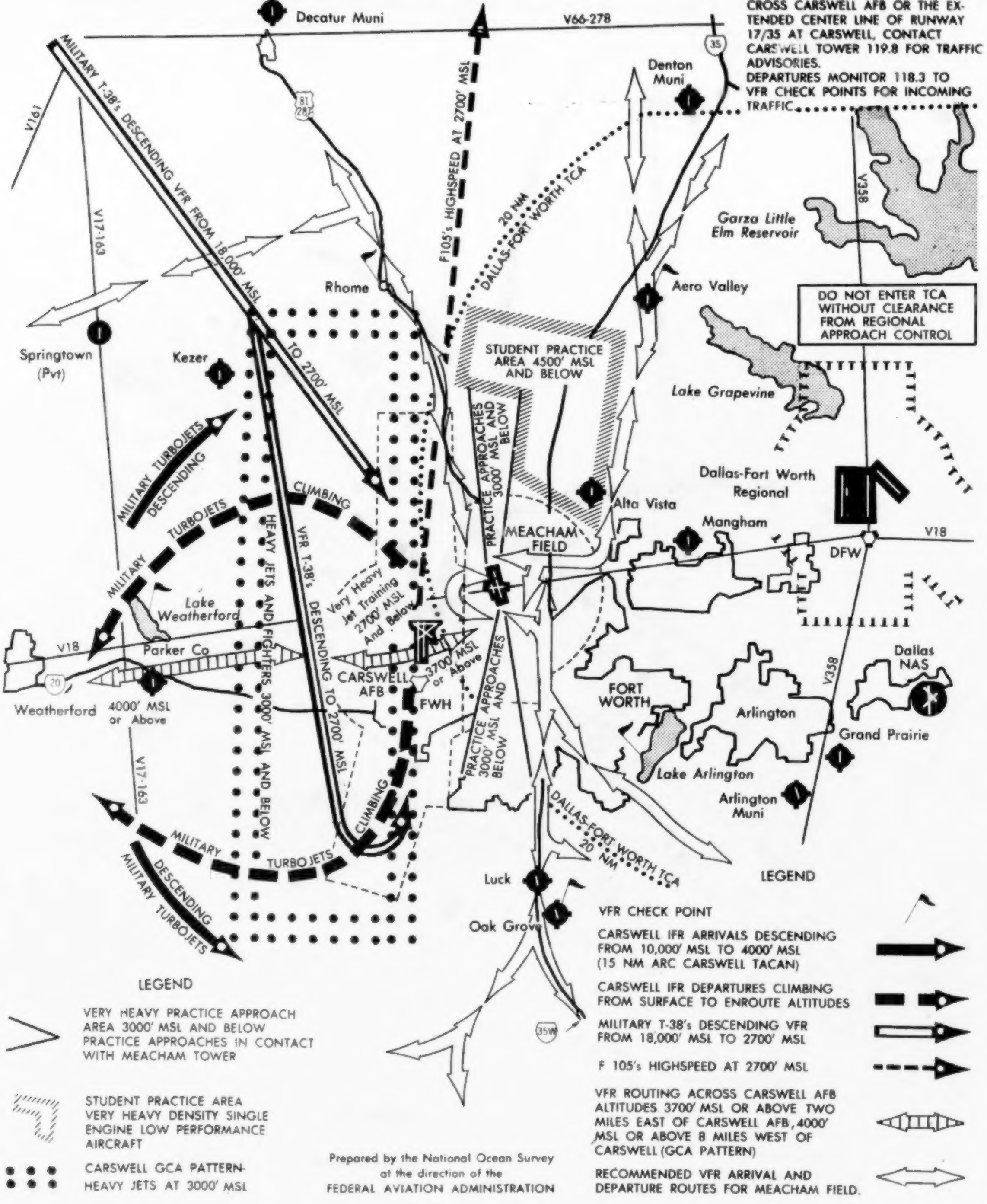
(NOT TO BE USED FOR NAVIGATION)

FORT WORTH, TEXAS
MEACHAM FIELD, CARSWELL AFB

AIRCRAFT REQUESTING RADAR ADVISORIES CONTACT REGIONAL APPROACH CONTROL 120.5.

ALL AIRCRAFT OPERATING TO AND FROM MEACHAM FIELD THAT WILL CROSS CARSWELL AFB OR THE EXTENDED CENTER LINE OF RUNWAY 17/35 AT CARSWELL, CONTACT CARSWELL TOWER 119.8 FOR TRAFFIC ADVISORIES.

DEPARTURES MONITOR 118.3 TO VFR CHECK POINTS FOR INCOMING TRAFFIC.


Decatur Muni
V66-278
35
81
287
Denton Muni
V161
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL
TO 2700' MSL
F105's HIGHSPEED AT 2700' MSL
20 NM DALLAS-FORT WORTH TCA
V358
Garza Little Elm Reservoir
V17-163
Rhome
Aero Valley
DO NOT ENTER TCA WITHOUT CLEARANCE FROM REGIONAL APPROACH CONTROL
Springtown (Pvt)
Kezer
STUDENT PRACTICE AREA 4500' MSL AND BELOW
Lake Grapevine
MILITARY TURBOJETS DESCENDING
MILITARY TURBOJETS CLIMBING
PRACTICE APPROACHES 3000' MSL AND BELOW
Dallas-Fort Worth Regional
Alta Vista
Mangham
HEAVY JETS AND FIGHTERS 3000' MSL AND BELOW
VFR T-38's DESCENDING TO 2700' MSL
MEACHAM FIELD
V18
DFW
Lake Weatherford
Very Heavy Jet Training 2700' MSL And Below
V18
Parker Co
3700' MSL or Above
CARSWELL AFB
FWH
20
Weatherford
4000' MSL or Above
FORT WORTH
Arlington
Dallas NAS
Grand Prairie
V17-163
Lake Arlington
Arlington Muni
MILITARY TURBOJETS
CLIMBING
MILITARY TURBOJETS DESCENDING
DALLAS-FORT WORTH TCA 20 NM
Luck
Oak Grove
35W

LEGEND

VFR CHECK POINT

CARSWELL IFR ARRIVALS DESCENDING FROM 10,000' MSL TO 4000' MSL (15 NM ARC CARSWELL TACAN)

CARSWELL IFR DEPARTURES CLIMBING FROM SURFACE TO ENROUTE ALTITUDES

MILITARY T-38's DESCENDING VFR FROM 18,000' MSL TO 2700' MSL

F 105's HIGHSPEED AT 2700' MSL

VFR ROUTING ACROSS CARSWELL AFB ALTITUDES 3700' MSL OR ABOVE TWO MILES EAST OF CARSWELL AFB, 4000' MSL OR ABOVE 8 MILES WEST OF CARSWELL (GCA PATTERN)

RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTES FOR MEACHAM FIELD.

LEGEND

VERY HEAVY PRACTICE APPROACH AREA 3000' MSL AND BELOW PRACTICE APPROACHES IN CONTACT WITH MEACHAM TOWER

STUDENT PRACTICE AREA VERY HEAVY DENSITY SINGLE ENGINE LOW PERFORMANCE AIRCRAFT

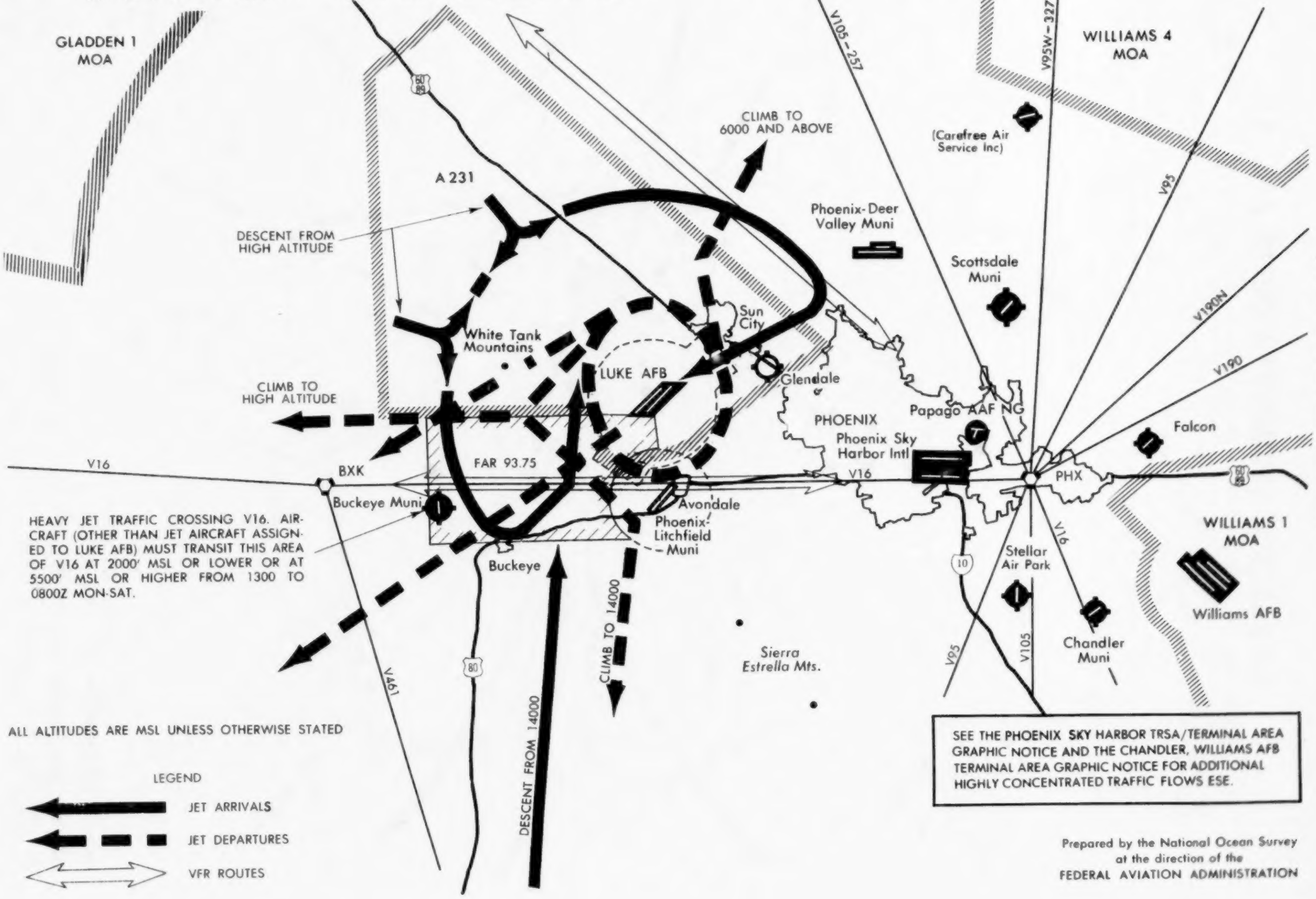
CARSWELL GCA PATTERN-HEAVY JETS AT 3000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

GLENDALE, LUKE AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LUKE AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 126.8.


GLADDEN 1
MOA
A 231
DESCENT FROM
HIGH ALTITUDE
CLIMB TO
6000 AND ABOVE
V105-257
V95W-327
WILLIAMS 4
MOA
(Carefree Air
Service Inc)
V95
Phoenix-Deer
Valley Muni
Scottsdale
Muni
V190N
V190
White Tank
Mountains
Sun
City
LUKE AFB
Glendale
CLIMB TO
HIGH ALTITUDE
PHOENIX
Papago AAF NG
Phoenix Sky
Harbor Intl
Falcon
PHX
V16
BXK
FAR 93.75
Buckeye Muni
Avondale
Phoenix-
Litchfield
Muni
Buckeye
WILLIAMS 1
MOA
Stellar
Air Park
10
Williams AFB
80
CLIMB TO 14000
DESCENT FROM 14000
V461
Sierra
Estrella Mts.
V95
V105
Chandler
Muni
LEGEND
JET ARRIVALS
JET DEPARTURES
VFR ROUTES

HEAVY JET TRAFFIC CROSSING V16. AIRCRAFT (OTHER THAN JET AIRCRAFT ASSIGNED TO LUKE AFB) MUST TRANSIT THIS AREA OF V16 AT 2000′ MSL OR LOWER OR AT 5500′ MSL OR HIGHER FROM 1300 TO 0800Z MON-SAT.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

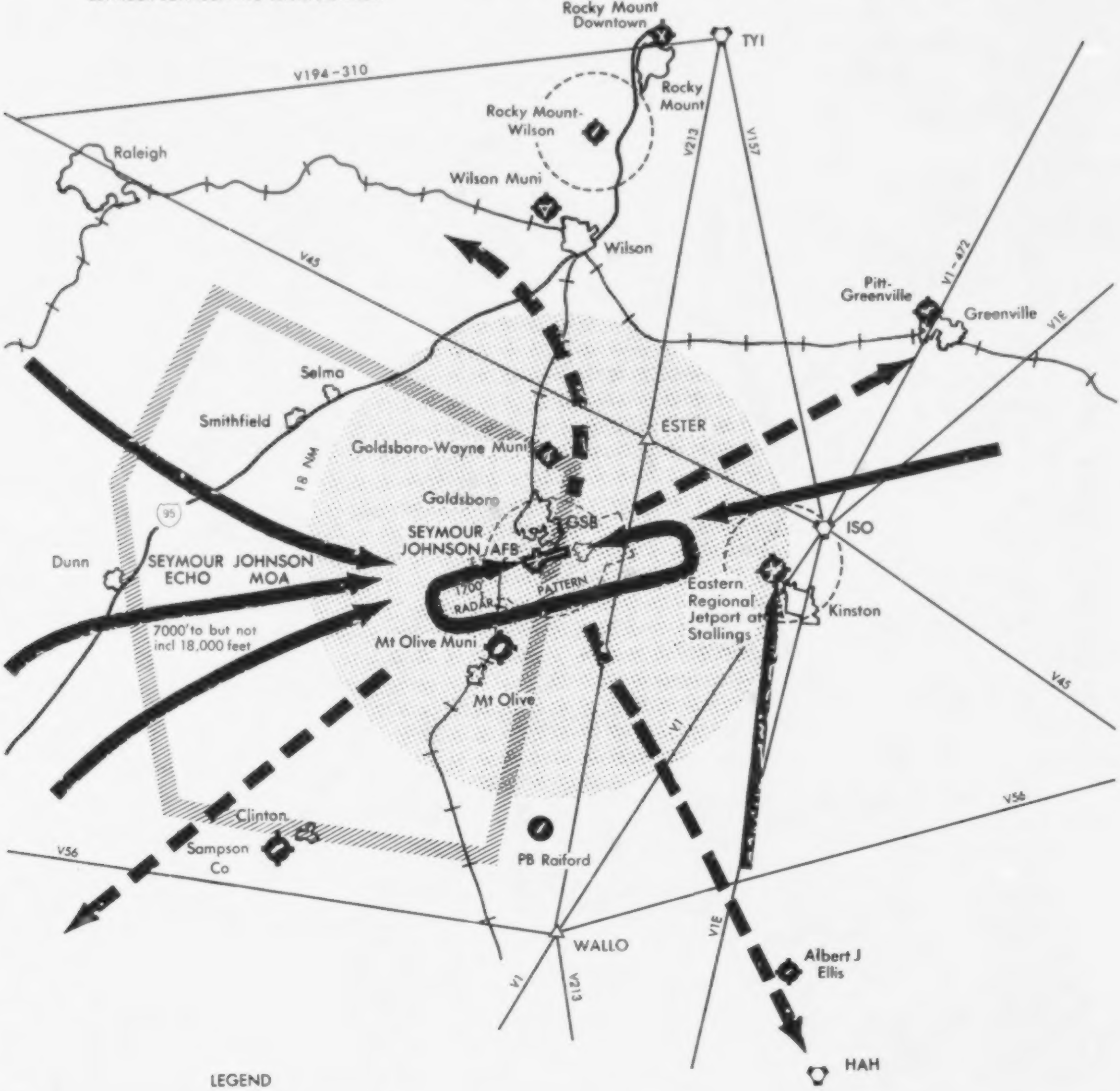
SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

GOLDSBORO, SEYMOUR JOHNSON AFB, N.C.

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE AIRCRAFT TRAFFIC IN THE VICINITY OF SEYMOUR JOHNSON AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST OF KC/EC-135's, B-52's F-4's, AND T38's. WITHIN 18 NM OF THE SEYMOUR JOHNSON TACAN, AIRCRAFT OPERATE FROM 1700 TO 5000 FT. MSL. THE RADAR ARRIVAL PATTERN IS NORMALLY ON THE SOUTH SIDE OF THE RUNWAY. AIRCRAFT ARE AT 1700 FT MSL ON THE DOWNWIND AND BASE LEG. THE SEYMOUR JOHNSON ECHO MOA IS USED BY F-4's AND T38's IN VFR CONDITIONS. AIRCRAFT IN THIS AREA OPERATE FROM 7000 FT. MSL TO FL 200 WITH ATC APPROVAL. IT IS SUGGESTED THAT VFR AIRCRAFT TRANSITING THE AREA AND ARRIVING/DEPARTING GOLDSBORO-WAYNE MUNICIPAL AIRPORT, MT. OLIVE MUNICIPAL AIRPORT, AND STALLINGS FIELD CONTACT SEYMOUR JOHNSON APPROACH CONTROL ON 119.7 MHZ/338.6 MHZ FOR TRAFFIC ADVISORIES. RECOMMEND THAT VFR TRAFFIC USE ROUTES AND ALTITUDES TO AVOID THE DEPICTED AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE TRAFFIC IN THE SEYMOUR JOHNSON AFB TERMINAL AREA.


Rocky Mount Downtown
TYI
V194-310
Rocky Mount
Rocky Mount-Wilson
V213
V157
Raleigh
Wilson Muni
Wilson
V45
Pitt-Greenville
Greenville
V1-472
V1E
Selma
Smithfield
ESTER
18 NM
Goldsboro-Wayne Muni
Goldsboro
95
SEYMOUR JOHNSON AFB
GSB
ISO
Dunn
SEYMOUR JOHNSON ECHO MOA
1700'
RADAR
PATTERN
Eastern Regional Jetport at Stallings
Kinston
7000' to but not incl 18,000 feet
Mt Olive Muni
Mt Olive
V1
V45
V56
Clinton
Sampson Co
PB Raiford
V56
WALLO
V1E
V1
V213
Albert J Ellis
HAH

LEGEND

➡ MAJOR ARRIVAL ROUTES

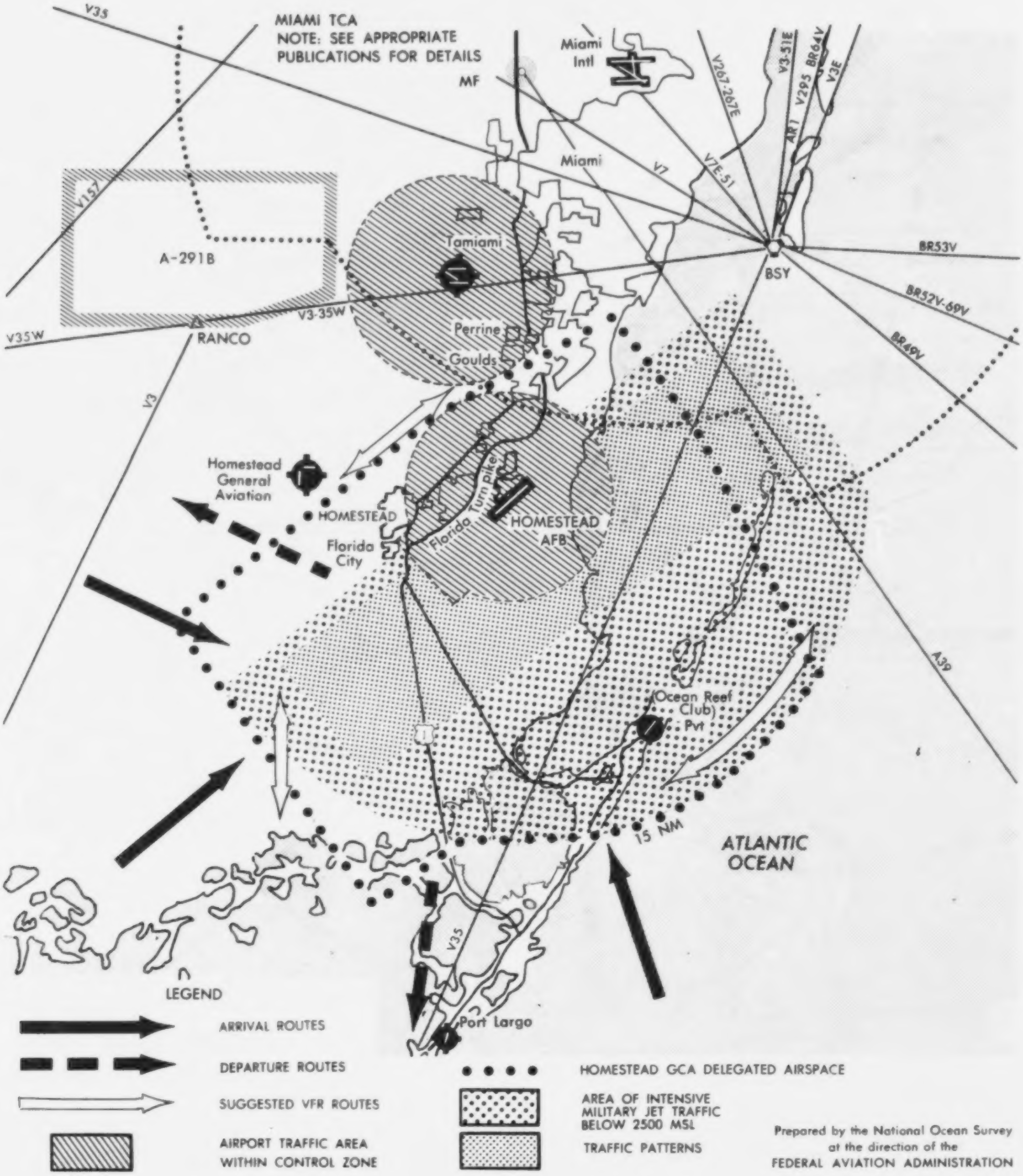
▬ ▬ ▬ ➡ MAJOR DEPARTURE ROUTES

▨ SURFACE TO 5000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

HOMESTEAD AFB, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE MILITARY JET OPERATIONS IN THE VICINITY OF HOMESTEAD AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST PRIMARILY OF F-4s AND HELICOPTERS. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT HOMESTEAD GCA ON 123.8 OR HOMESTEAD TOWER ON 126.2 STAGE II SERVICE IS AVAILABLE FOR AIRCRAFT ARRIVING HOMESTEAD AFB.

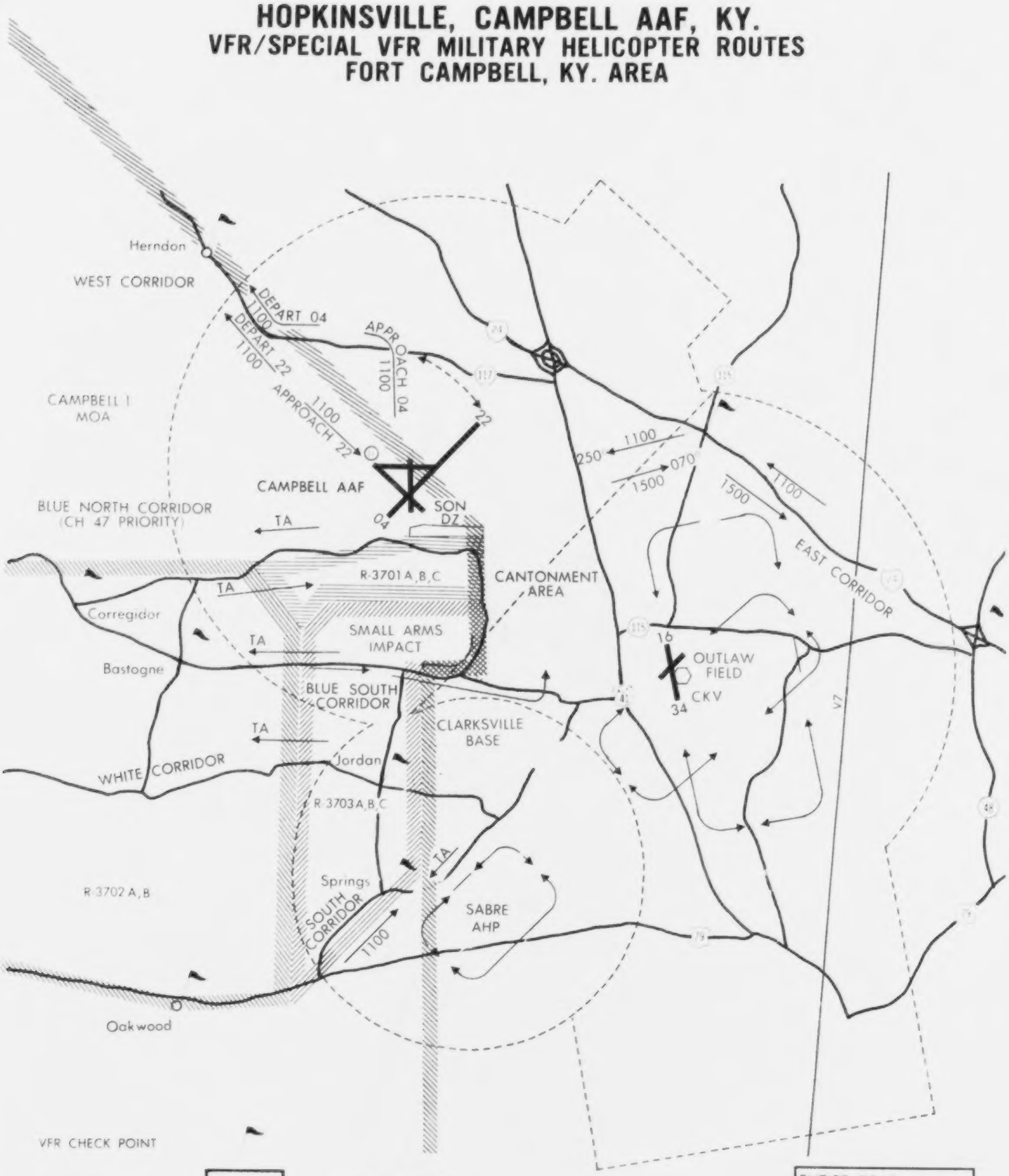

V35
MIAMI TCA
NOTE: SEE APPROPRIATE
PUBLICATIONS FOR DETAILS
MF
Miami
Intl
V267-267E
V3-51E
AR1
V295
BR64V
V3E
Miami
V7
V7E-51
V157
A-291B
Tamiami
BSY
BR53V
BR52V-69V
BR49V
V3-35W
V35W
RANCO
Perrine
Goulds
V3
Homestead
General
Aviation
HOMESTEAD
Florida Turnpike
HOMESTEAD
AFB
Florida
City
A39
(Ocean Reef
Club)
Pvt
1
15 NM
ATLANTIC
OCEAN
V35
Port Largo
LEGEND
ARRIVAL ROUTES
DEPARTURE ROUTES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
WITHIN CONTROL ZONE
HOMESTEAD GCA DELEGATED AIRSPACE
AREA OF INTENSIVE
MILITARY JET TRAFFIC
BELOW 2500 MSL
TRAFFIC PATTERNS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

5 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOPKINSVILLE, CAMPBELL AAF, KY.
VFR/SPECIAL VFR MILITARY HELICOPTER ROUTES
FORT CAMPBELL, KY. AREA


Herndon
WEST CORRIDOR
DEPART 04
1100
DEPART 22
1100
APPROACH 04
1100
APPROACH 22
1100
22
04
CAMPBELL 1
MOA
CAMPBELL AAF
SON
DZ
BLUE NORTH CORRIDOR
(CH 47 PRIORITY)
TA
TA
TA
TA
TA
R-3701 A,B,C
CANTONMENT
AREA
Corregidor
SMALL ARMS
IMPACT
Bastogne
BLUE SOUTH
CORRIDOR
CLARKSVILLE
BASE
Jordan
WHITE CORRIDOR
R-3703 A,B,C
R-3702 A,B
Springs
SOUTH
CORRIDOR
1100
SABRE
AHP
Oakwood
250
1100
070
1500
1500
1100
EAST CORRIDOR
16
OUTLAW
FIELD
CKV
34
V7
24
117
115
115
41
79
48

ENTIRE GRAPHIC FALLS WITHIN A-371

VFR CHECK POINT ▶

CLARKVILLE BASE ☐

CANTONMENT AREA ☐

RESTRICTED AREA ▨

TACTICAL ALTITUDE TA

FLIGHT DIRECTION AND MAXIMUM ALTITUDE (MSL)* → TA

*MANDATORY ALTITUDES DURING VFR CONDITIONS AND CLEAR OF CLOUDS DURING SPECIAL VFR CONDITIONS

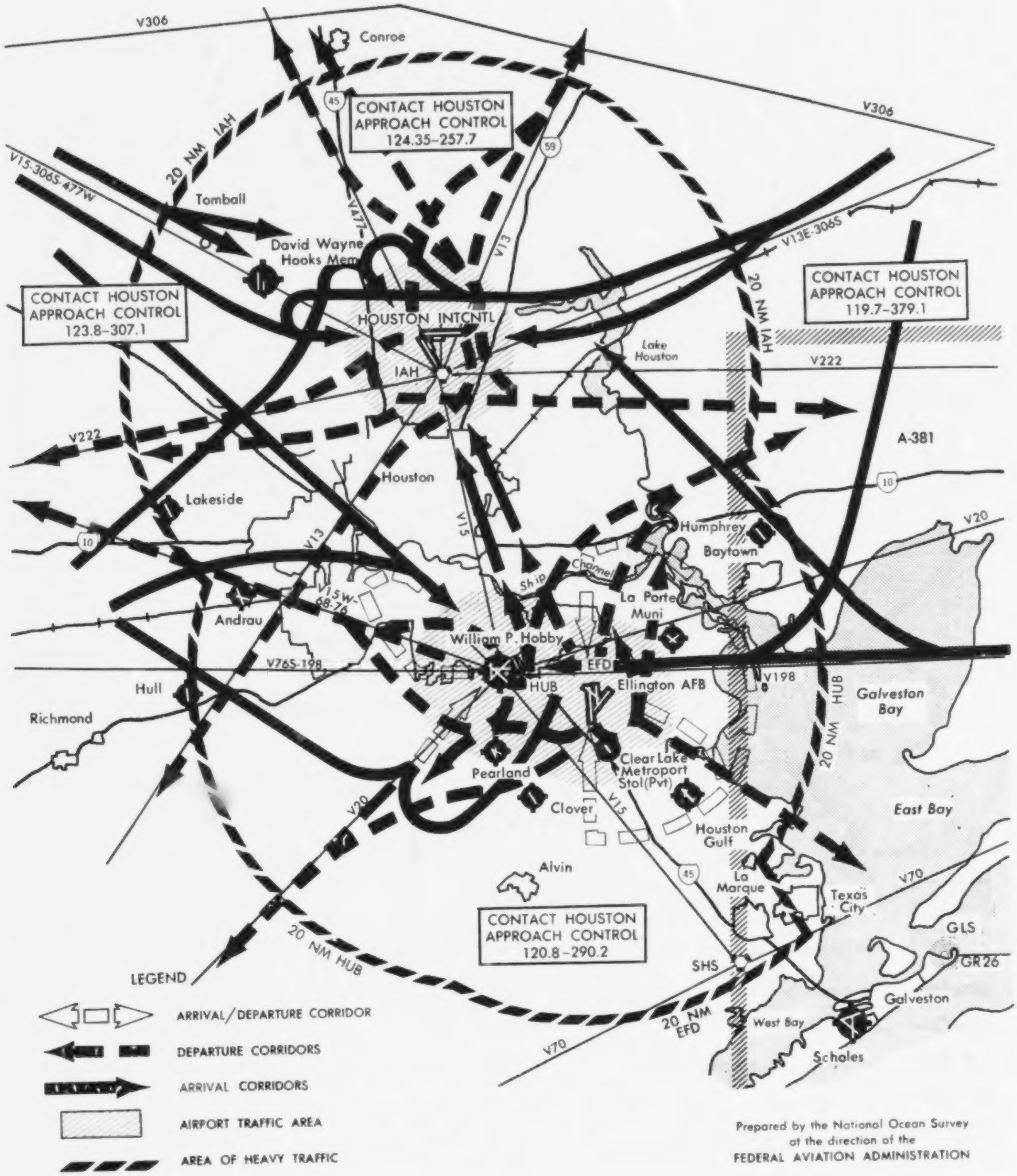
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

HOUSTON, TEXAS

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE ROUTES SERVING THE HOUSTON TERMINAL AREA FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS ARE ENCOURAGED TO CONTACT HOUSTON APPROACH CONTROL FOR TRAFFIC ADVISORY SERVICE.


V306
Conroe
45
CONTACT HOUSTON APPROACH CONTROL 124.35–257.7
V306
59
20 NM IAH
V15-306S-477W
Tomball
V477
David Wayne Hooks Mem
V13
V13E-306S
CONTACT HOUSTON APPROACH CONTROL 123.8–307.1
HOUSTON INTCNTL
IAH
Lake Houston
20 NM IAH
CONTACT HOUSTON APPROACH CONTROL 119.7–379.1
V222
V222
A-381
Houston
10
Lakeside
10
V13
V15
Humphrey
Baytown
V20
Ship Channel
V15W-68.76
Andrau
La Porte Muni
William P. Hobby
V76S-198
EFD
HUB
Ellington AFB
V198
Hull
Richmond
20 NM HUB
Galveston Bay
Pearland
Clear Lake Metroport Stol(Pvt)
V20
Clover
V15
Houston Gulf
East Bay
Alvin
45
La Marque
Texas City
V70
CONTACT HOUSTON APPROACH CONTROL 120.8–290.2
20 NM HUB
GLS
GR26
SHS
Galveston
20 NM EFD
West Bay
Scholes
V70
LEGEND
ARRIVAL/DEPARTURE CORRIDOR
DEPARTURE CORRIDORS
ARRIVAL CORRIDORS
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

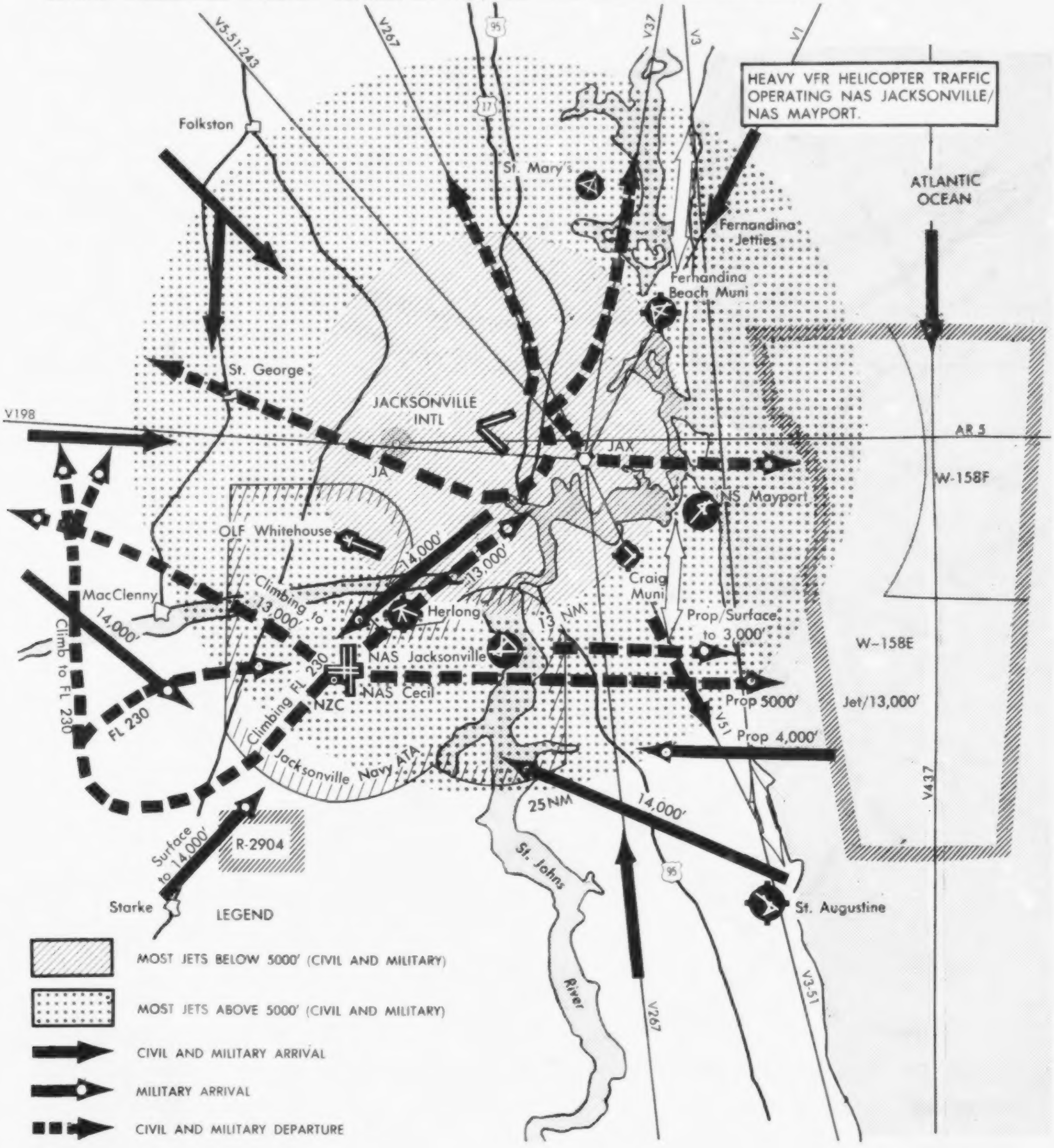
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE INTL. AIRPORT, JACKSONVILLE, FLORIDA

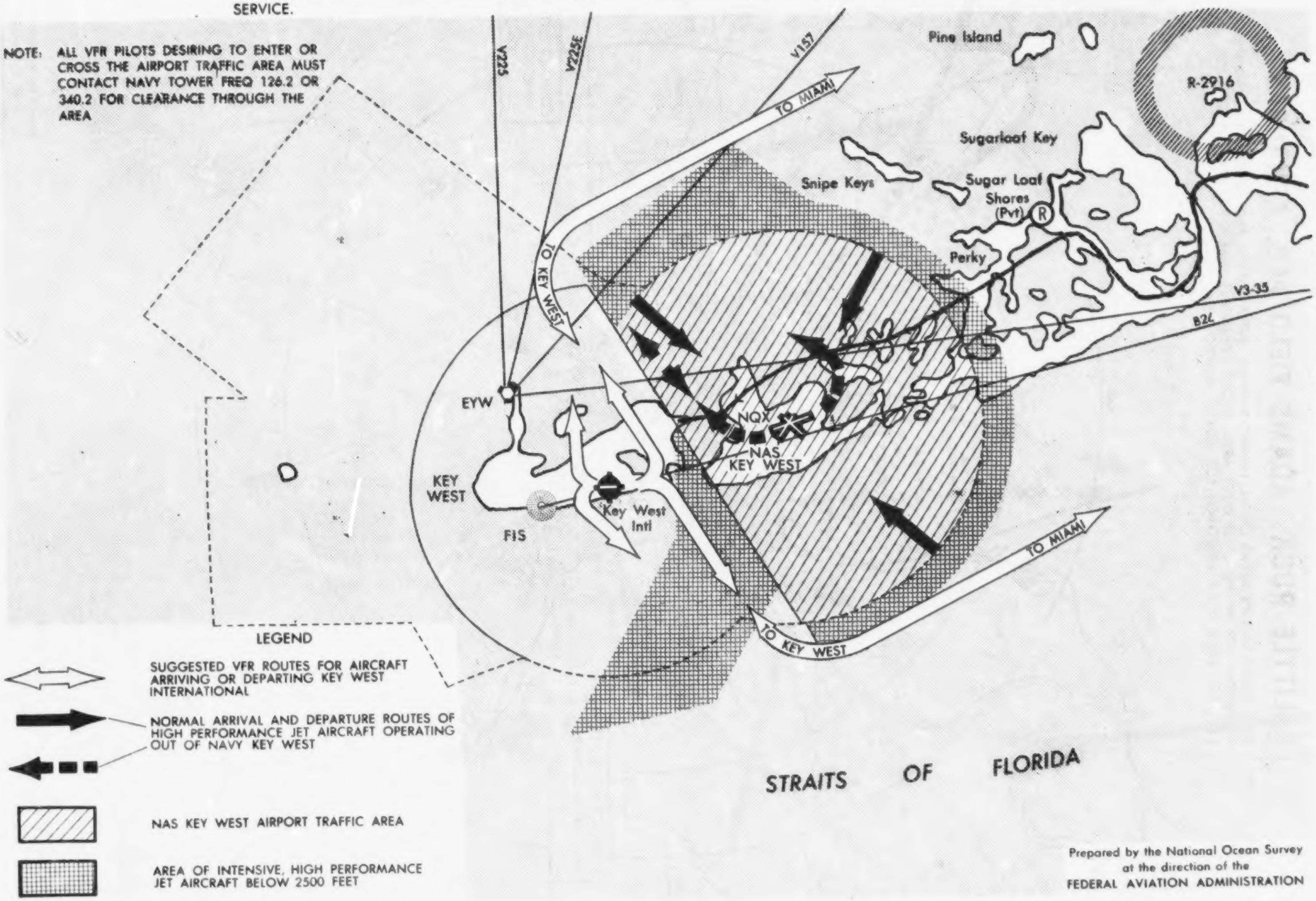
THIS GRAPHIC SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE JACKSONVILLE TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT JACKSONVILLE APPROACH CONTROL ON 119.0/335.6 WHILE TRANSITING THIS AIRSPACE.


V5-51-243
V267
95
V37
V3
V1
HEAVY VFR HELICOPTER TRAFFIC OPERATING NAS JACKSONVILLE/ NAS MAYPORT.
Folkston
17
St. Mary's
ATLANTIC OCEAN
Fernandina Jetties
Fernandina Beach Muni
St. George
JACKSONVILLE INTL
V198
AR 5
JAX
JA
W-158F
NS Mayport
OLF Whitehouse
14,000'
13,000'
Climbing to 13,000'
MacClenny
14,000'
Herlong
Craig Muni
13 NM
Prop/Surface to 3,000'
W-158E
NAS Jacksonville
NAS Cecil
NZC
Climbing FL 230
Climb to FL 230
FL 230
Prop 5000'
Jet/13,000'
V51
Prop 4,000'
Jacksonville Navy ATA
25NM
14,000'
V437
R-2904
Surface to 14,000'
St. Johns River
95
St. Augustine
Starke
V267
V3-51
LEGEND
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL
CIVIL AND MILITARY DEPARTURE
MILITARY DEPARTURE
SUGGESTED N/S VFR ROUTE
CAUTION N/S MAYPORT ARPT. TRAFFIC AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

KEY WEST NAS, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE JET OPERATIONS IN THE VICINITY OF KEY WEST. MILITARY AIRCRAFT CONSIST PRIMARILY OF A-4, F-4, AND A-5 TYPE AIRCRAFT. ALL VFR PILOTS OPERATING IN THE KEY WEST AREA ARE ENCOURAGED TO CONTACT KEY WEST APPROACH ON 118.7 OR 263.6 FOR RADAR ADVISORY SERVICE.


V225
V225E
V157
TO MIAMI
TO KEY WEST
Pine Island
R-2916
Sugarloaf Key
Snipe Keys
Sugar Loaf Shores (Pvt) R
Perky
V3-35
B2C
EYW
KEY WEST
FIS
Key West Intl
NQX
NAS KEY WEST
TO MIAMI
TO KEY WEST
STRAITS OF FLORIDA
LEGEND
SUGGESTED VFR ROUTES FOR AIRCRAFT ARRIVING OR DEPARTING KEY WEST INTERNATIONAL
NORMAL ARRIVAL AND DEPARTURE ROUTES OF HIGH PERFORMANCE JET AIRCRAFT OPERATING OUT OF NAVY KEY WEST
NAS KEY WEST AIRPORT TRAFFIC AREA
AREA OF INTENSIVE, HIGH PERFORMANCE JET AIRCRAFT BELOW 2500 FEET

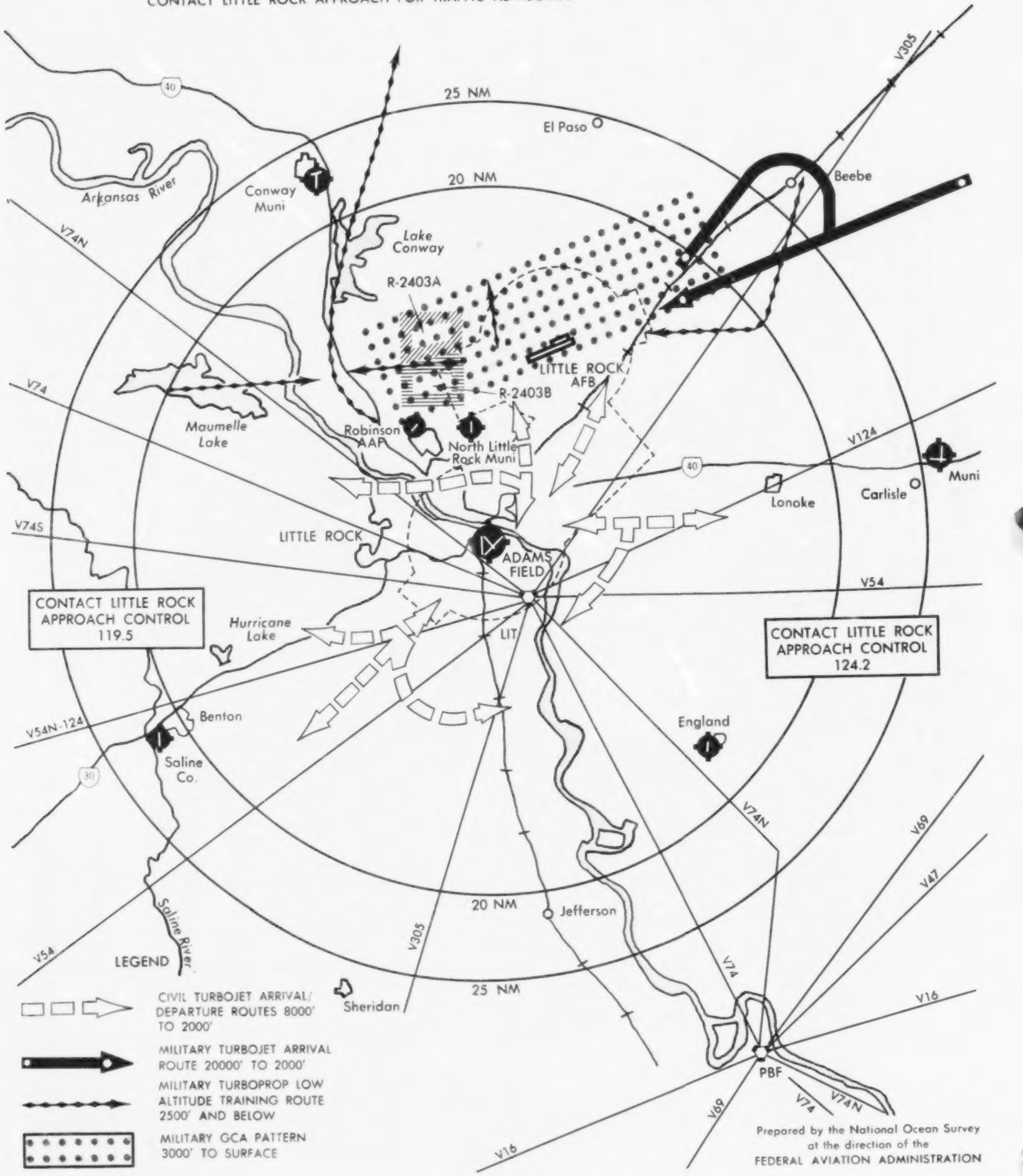
NOTE: ALL VFR PILOTS DESIRING TO ENTER OR CROSS THE AIRPORT TRAFFIC AREA MUST CONTACT NAVY TOWER FREQ 126.2 OR 340.2 FOR CLEARANCE THROUGH THE AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK ADAMS FIELD/AFB, ARKANSAS

THIS CHART SHOWS AREAS OF IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LITTLE ROCK AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT LITTLE ROCK APPROACH FOR TRAFFIC ADVISORIES.

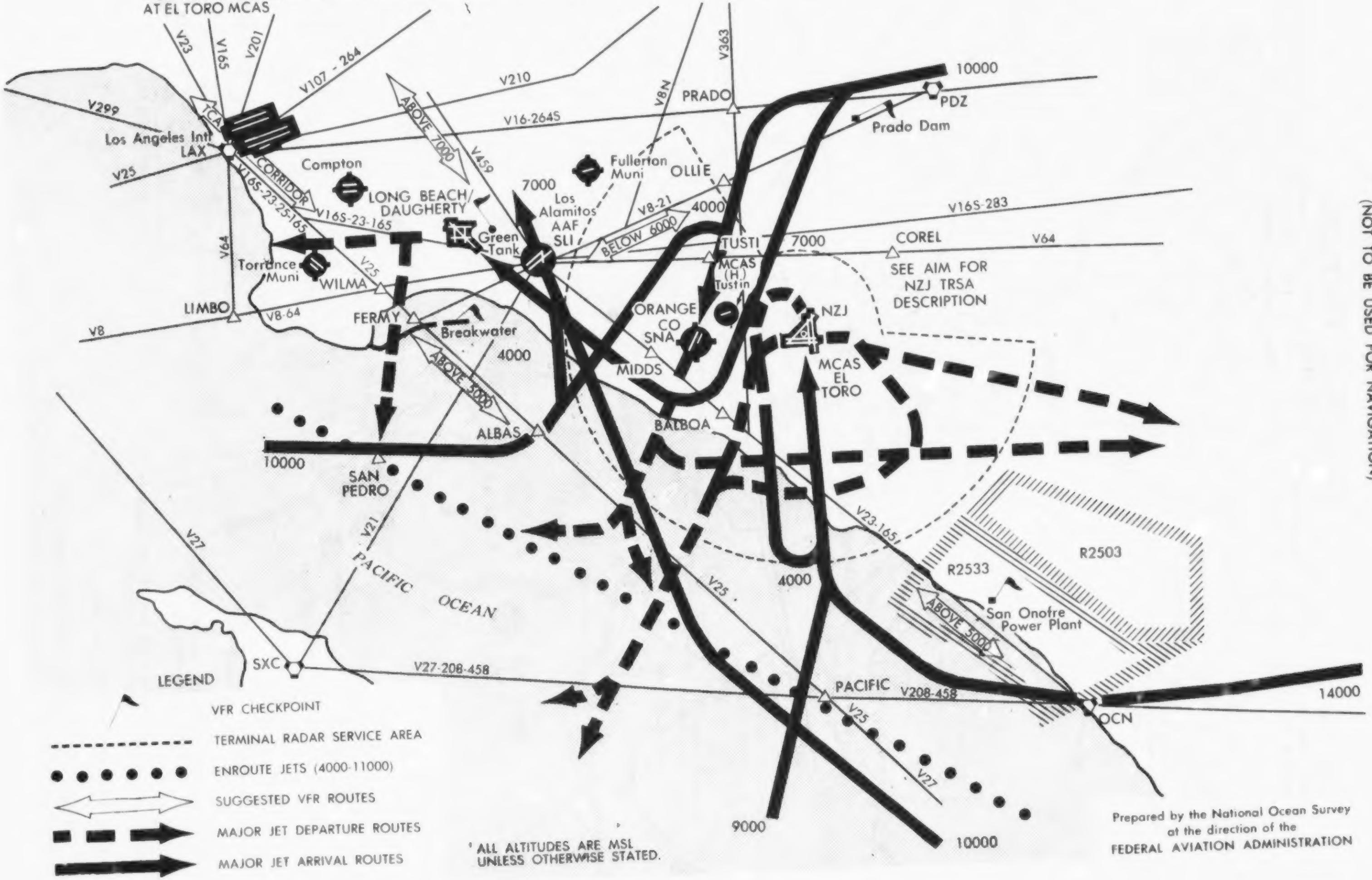

40
25 NM
El Paso
20 NM
Beebe
V305
Arkansas River
Conway Muni
V74N
Lake Conway
R-2403A
LITTLE ROCK AFB
R-2403B
V74
Maumelle Lake
Robinson AAF
North Little Rock Muni
V124
Muni
Carlisle
Lonoke
V74S
LITTLE ROCK
ADAMS FIELD
V54
CONTACT LITTLE ROCK APPROACH CONTROL 119.5
Hurricane Lake
LIT
CONTACT LITTLE ROCK APPROACH CONTROL 124.2
V54N-124
Benton
England
Saline Co.
30
V74N
V69
V47
20 NM
Jefferson
V305
Saline River
V54
V74
LEGEND
25 NM
Sheridan
V16
PBF
V74
V74N
V69
V16
CIVIL TURBOJET ARRIVAL/ DEPARTURE ROUTES 8000' TO 2000'
MILITARY TURBOJET ARRIVAL ROUTE 20000' TO 2000'
MILITARY TURBOPROP LOW ALTITUDE TRAINING ROUTE 2500' AND BELOW
MILITARY GCA PATTERN 3000' TO SURFACE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

LONG BEACH/DAUGHERTY - ORANGE COUNTY - EL TORO, CALIFORNIA

THIS CHART, DEPICITING THE IFR ROUTES WITHIN THE COAST APPROACH CONTROL AIRSPACE, IS TO ASSIST PILOTS IN PLANNING FLIGHTS INTO AND THROUGH THE AREA. STAGE II SERVICE TO LONG BEACH AIRPORT, AND TRAFFIC ADVISORY SERVICE IS AVAILABLE ON THE FOLLOWING FREQUENCIES: NORTH AND EAST OF SEAL BEACH VOR-121.3; SOUTH-124.65; WEST-127.2. SOUTH EAST OF SANTA ANA VOR-124.1. STAGE III SERVICE IS AVAILABLE AT EL TORO MCAS


V23
V165
V201
V107 - 264
V299
TCA
Los Angeles Intl
LAX
V25
CORRIDOR
V16S-23-25-165
V16S-23-165
V210
ABOVE 7000
V459
V16-264S
Compton
LONG BEACH/
DAUGHERTY
V64
Torrance
Muni
WILMA
LIMBO
V8
V8-64
FERMY
Breakwater
ABOVE 3000
4000
ALBAS
10000
SAN
PEDRO
V21
V27
PACIFIC
OCEAN
SXC
V27-208-458
7000
Green
Tank
Los
Alamitos
AAF
SLI
Fullerton
Muni
V8N
PRADO
V363
OLLIE
V8-21
4000
BELOW 6000
TUSTI
7000
MCAS
(H)
Tustin
ORANGE
CO
SNA
MIDDS
BALBOA
NZJ
MCAS
EL
TORO
10000
PDZ
Prado Dam
V16S-283
COREL
V64
SEE AIM FOR
NZJ TRSA
DESCRIPTION
V23-165
R2533
R2503
ABOVE 3000
San Onofre
Power Plant
4000
V25
PACIFIC
V208-458
V25
V27
OCN
14000
9000
10000
LEGEND
VFR CHECKPOINT
TERMINAL RADAR SERVICE AREA
ENROUTE JETS (4000-11000)
SUGGESTED VFR ROUTES
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES

' ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

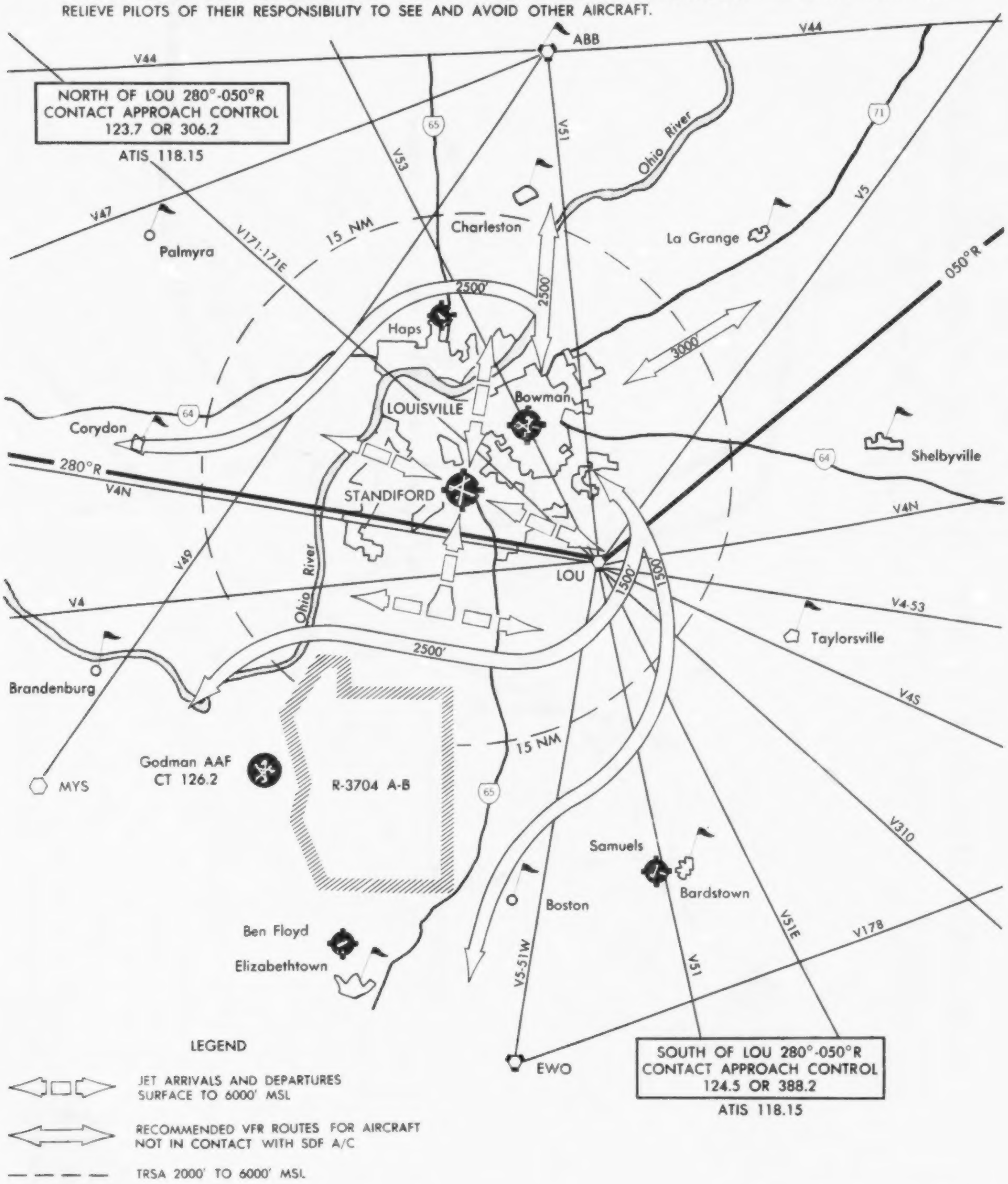
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY

THIS CHART SHOWS THE PRINCIPAL IFR JET TRAFFIC ROUTES. VFR PILOTS OPERATING IN THIS AREA ARE STRONGLY ENCOURAGED TO CONTACT STANDIFORD APPROACH CONTROL FOR TRAFFIC ADVISORIES. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.


NORTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
123.7 OR 306.2
ATIS 118.15
ABB
V44
V44
V47
V53
V51
V5
V171-171E
65
71
Ohio River
15 NM
Charleston
La Grange
Palmyra
050°R
2500'
2500'
3000'
Haps
Bowman
LOUISVILLE
Corydon
64
Shelbyville
64
280°R
V4N
V4N
STANDIFORD
V49
Ohio River
LOU
1500'
1500'
V4
V4-53
Taylorsville
2500'
Brandenburg
V4S
15 NM
Godman AAF
CT 126.2
R-3704 A-B
MYS
65
V310
Samuels
Bardstown
Boston
V51E
V178
Ben Floyd
Elizabethtown
V5-51W
V51
EWO
SOUTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
124.5 OR 388.2
ATIS 118.15
LEGEND
JET ARRIVALS AND DEPARTURES SURFACE TO 6000' MSL
RECOMMENDED VFR ROUTES FOR AIRCRAFT NOT IN CONTACT WITH SDF A/C
TRSA 2000' TO 6000' MSL

AIRCRAFT RECEIVING STAGE III SERVICE MAY EXPECT DIRECT ROUTINGS TO THE EXTENT POSSIBLE.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

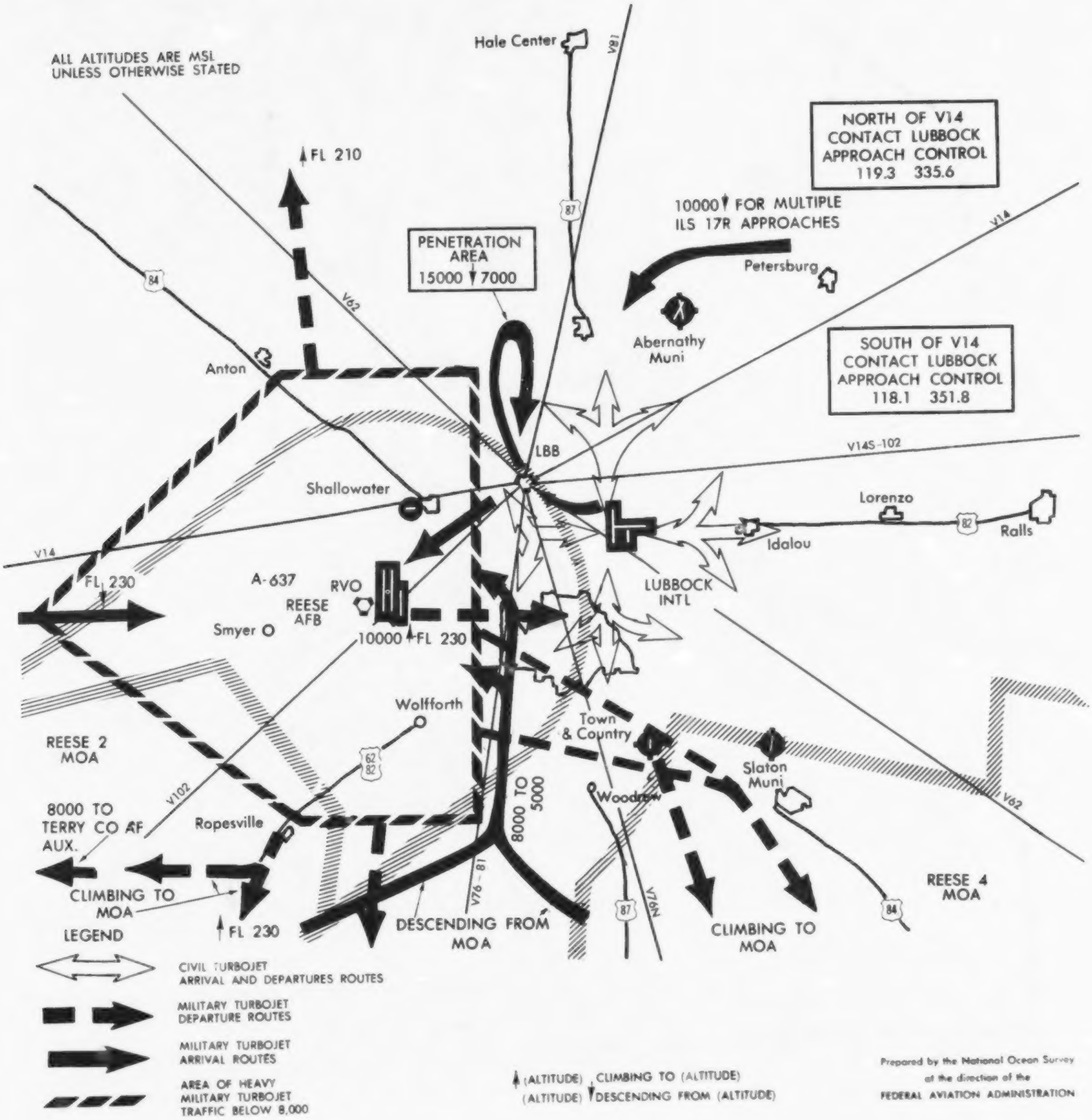
13 JUL 1978

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

LUBBOCK INTERNATIONAL, TEXAS

THIS CHART SHOWS AREAS OF CONCENTRATED TURBOJET IFR TRAFFIC AND AREAS WHICH CONTAIN A HIGH VOLUME OF TURBOJET OPERATIONS IN THE LUBBOCK/REESE AFB TERMINAL AREA. HIGH PERFORMANCE AIRCRAFT LANDING LUBBOCK INTERNATIONAL AIRPORT ARE NORMALLY IN A GRADUATED DESCENT (300' PER MILE) FROM APPROXIMATELY 12,000 MSL AT 30 NM FROM THE AIRPORT TO THE LANDING RUNWAY. AIRCRAFT ARE ENCOURAGED TO CONTACT LUBBOCK APPROACH CONTROL FOR TRAFFIC ADVISORIES.

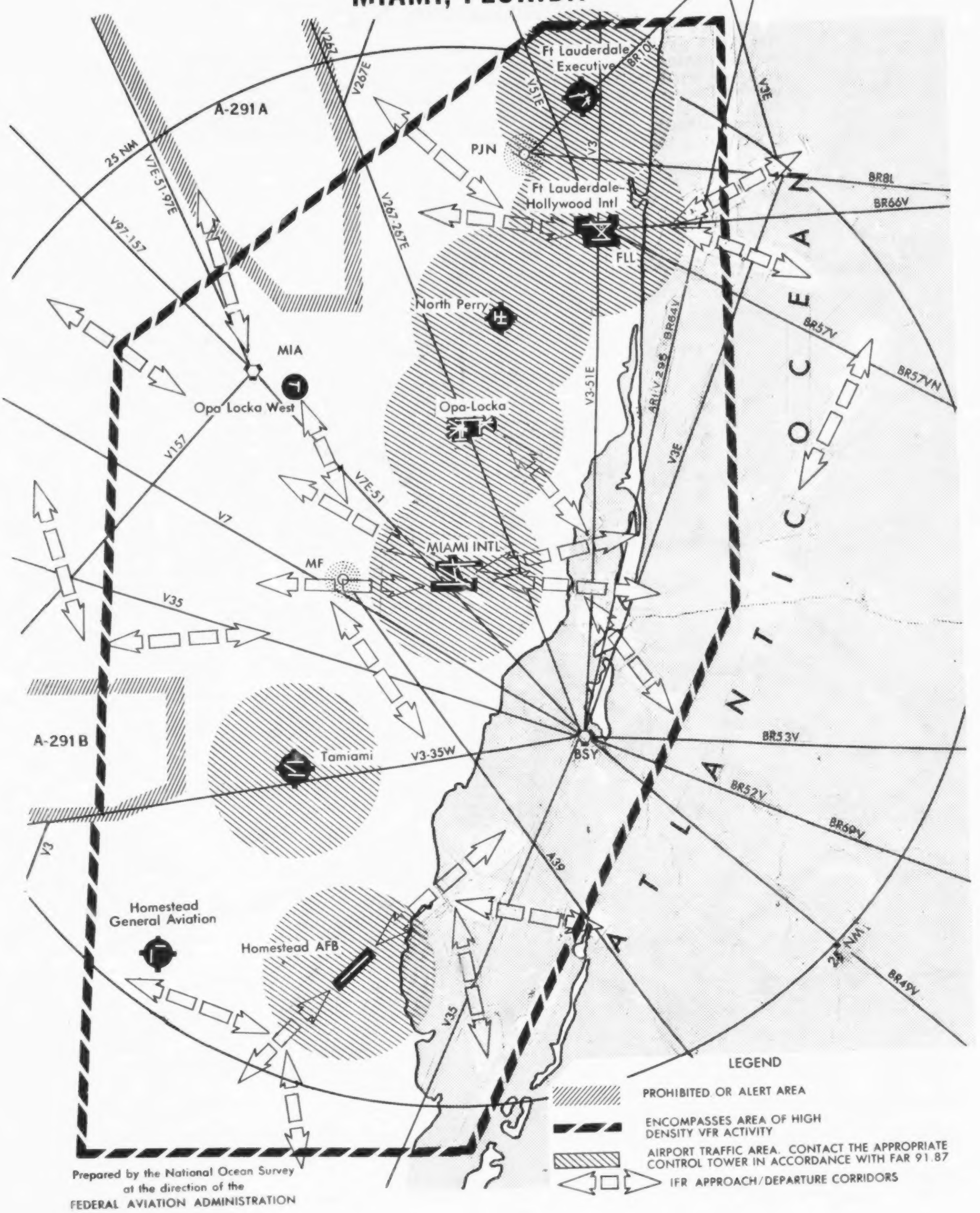

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
Hale Center
V81
NORTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 119.3 335.6
FL 210
87
10000 FOR MULTIPLE ILS 17R APPROACHES
V14
PENETRATION AREA 15000 7000
Petersburg
84
V62
Abernathy Muni
SOUTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 118.1 351.8
Anton
LBB
V14S-102
Shallowater
Lorenzo
82
Ralls
Idalou
V14
FL 230
A-637
RVO
REESE AFB
LUBBOCK INTL
Smyer
10000 FL 230
Wolfforth
Town & Country
REESE 2 MOA
62 82
Slaton Muni
V102
8000 TO 5000
Woodrow
8000 TO TERRY CO AF AUX.
Ropesville
V76-81
V76N
87
84
REESE 4 MOA
CLIMBING TO MOA
FL 230
DESCENDING FROM MOA
CLIMBING TO MOA
LEGEND
CIVIL TURBOJET ARRIVAL AND DEPARTURES ROUTES
MILITARY TURBOJET DEPARTURE ROUTES
MILITARY TURBOJET ARRIVAL ROUTES
AREA OF HEAVY MILITARY TURBOJET TRAFFIC BELOW 8,000
(ALTITUDE) CLIMBING TO (ALTITUDE)
(ALTITUDE) DESCENDING FROM (ALTITUDE)

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

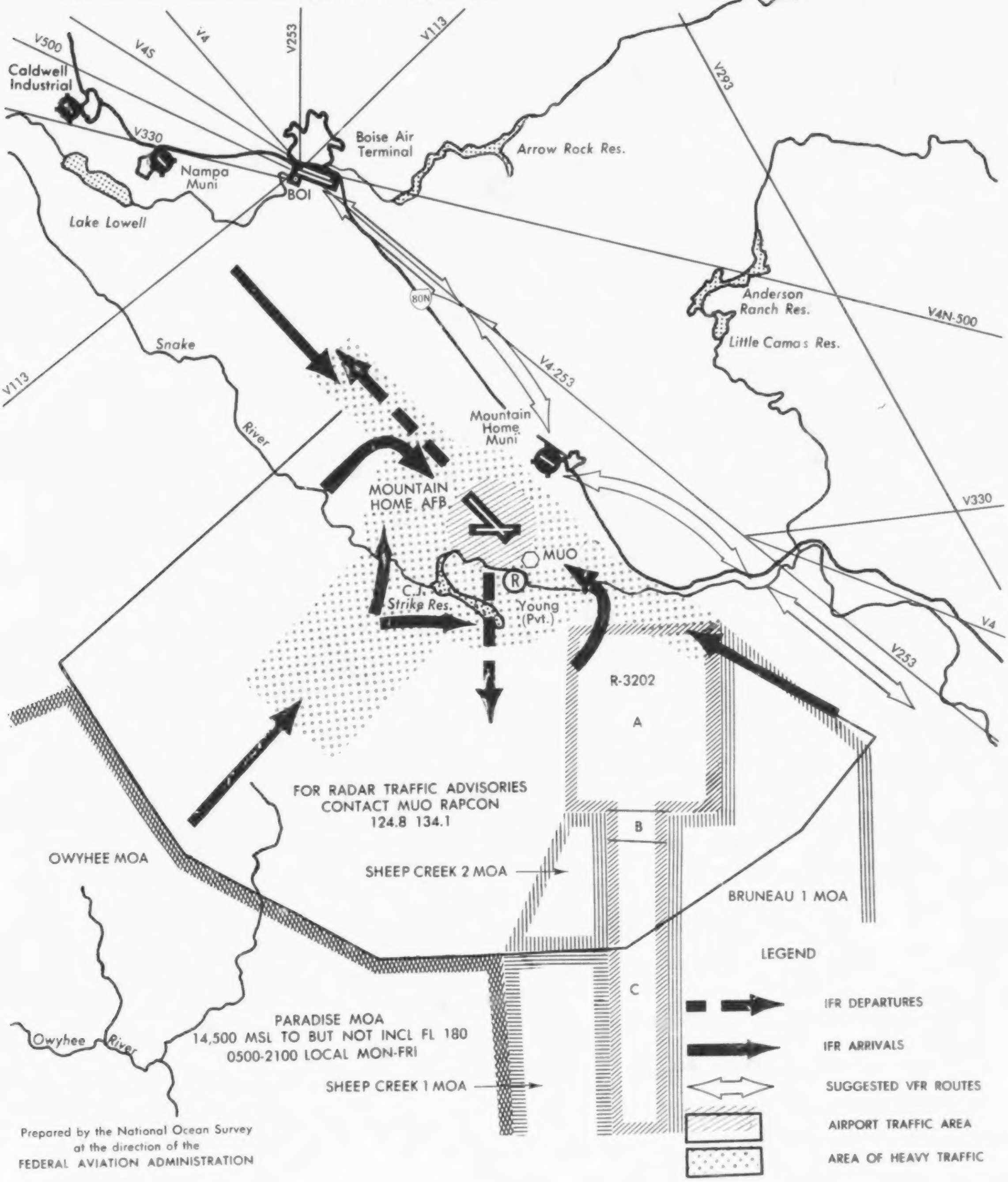
MIAMI, FLORIDA


A-291A
A-291B
25 NM
V7E-51-97E
V97-157
V267
V267E
V267-267E
Ft Lauderdale Executive
BR10L
V51E
V3
V3E
PJN
Ft Lauderdale-Hollywood Intl
FLL
BR8L
BR66V
BR57V
BR57VN
North Perry
BR64V
AR1-V 295
V3-51E
MIA
Opa Locka West
Opa-Locka
V157
V7E-51
V7
MIAMI INTL
MF
V35
Tamiami
V3-35W
BSY
BR53V
BR52V
BR69V
BR49V
A39
V3
V35
Homestead General Aviation
Homestead AFB
25 NM
ATLANTIC OCEAN
LEGEND
PROHIBITED OR ALERT AREA
ENCOMPASSES AREA OF HIGH DENSITY VFR ACTIVITY
AIRPORT TRAFFIC AREA. CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87
IFR APPROACH/DEPARTURE CORRIDORS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

MOUNTAIN HOME AFB, IDAHO

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING MOUNTAIN HOME AFB FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, OR PROPOSING TO TRANSIT THE PARADISE MOA WHICH LIES IMMEDIATELY SOUTH AND SOUTHWEST OF MOUNTAIN HOME AFB, ARE ENCOURAGED TO CONTACT MOUNTAIN HOME RAPCON FOR TRAFFIC ADVISORIES.


V500
V45
V4
V253
V113
V293
Caldwell Industrial
V330
Nampa Muni
Boise Air Terminal
BOI
Arrow Rock Res.
Lake Lowell
80N
Anderson Ranch Res.
Little Camas Res.
V4N-500
V4-253
Snake River
V113
Mountain Home Muni
MOUNTAIN HOME AFB
V330
MUO
R
C.J. Strike Res.
Young (Pvt.)
V4
V253
R-3202
A
B
C
FOR RADAR TRAFFIC ADVISORIES CONTACT MUO RAPCON 124.8 134.1
OWYHEE MOA
SHEEP CREEK 2 MOA
BRUNEAU 1 MOA
PARADISE MOA
14,500 MSL TO BUT NOT INCL FL 180
0500-2100 LOCAL MON-FRI
SHEEP CREEK 1 MOA
Owyhee River
LEGEND
IFR DEPARTURES
IFR ARRIVALS
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

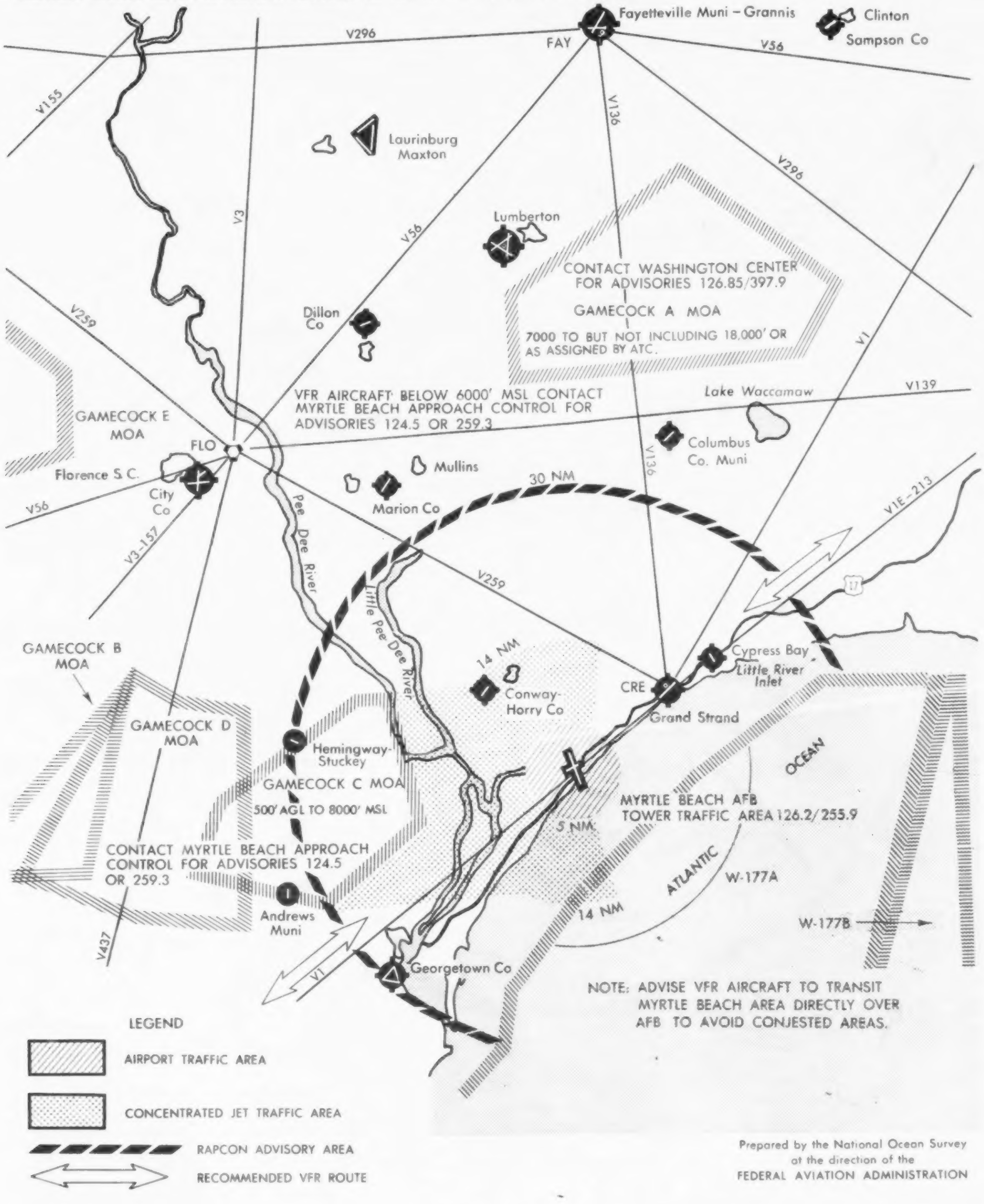
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MYRTLE BEACH AFB, SOUTH CAROLINA

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF A-7D AND T-33 AIRCRAFT OPERATING IN THE VICINITY OF MYRTLE BEACH AFB, SOUTH CAROLINA. VFR PILOTS TRANSITING OR OPERATING WITHIN THE AREA ARE ENCOURAGED TO CONTACT MYRTLE BEACH APPROACH CONTROL OR CENTER RADAR FOR ADVISORIES.


Fayetteville Muni – Grannis
FAY
Clinton
Sampson Co
V296
V56
V155
V136
V296
Laurinburg
Maxton
Lumberton
V3
V56
Dillon Co
V259
GAMECOCK E MOA
FLO
Florence S.C.
City Co
V56
V3-157
Lake Waccamaw
V139
V1
Columbus Co. Muni
Mullins
Marion Co
30 NM
V136
V1E-213
Pee Dee River
Little Pee Dee River
V259
17
14 NM
Conway-Horry Co
CRE
Cypress Bay
Little River Inlet
Grand Strand
GAMECOCK B MOA
GAMECOCK D MOA
Hemingway-Stuckey
GAMECOCK C MOA
500' AGL TO 8000' MSL
OCEAN
MYRTLE BEACH AFB
TOWER TRAFFIC AREA 126.2/255.9
5 NM
ATLANTIC
W-177A
14 NM
W-177B
Andrews Muni
V437
V1
Georgetown Co
LEGEND
AIRPORT TRAFFIC AREA
CONCENTRATED JET TRAFFIC AREA
RAPCON ADVISORY AREA
RECOMMENDED VFR ROUTE

CONTACT WASHINGTON CENTER FOR ADVISORIES 126.85/397.9
GAMECOCK A MOA
7000 TO BUT NOT INCLUDING 18,000' OR AS ASSIGNED BY ATC.

VFR AIRCRAFT BELOW 6000' MSL CONTACT MYRTLE BEACH APPROACH CONTROL FOR ADVISORIES 124.5 OR 259.3

CONTACT MYRTLE BEACH APPROACH CONTROL FOR ADVISORIES 124.5 OR 259.3

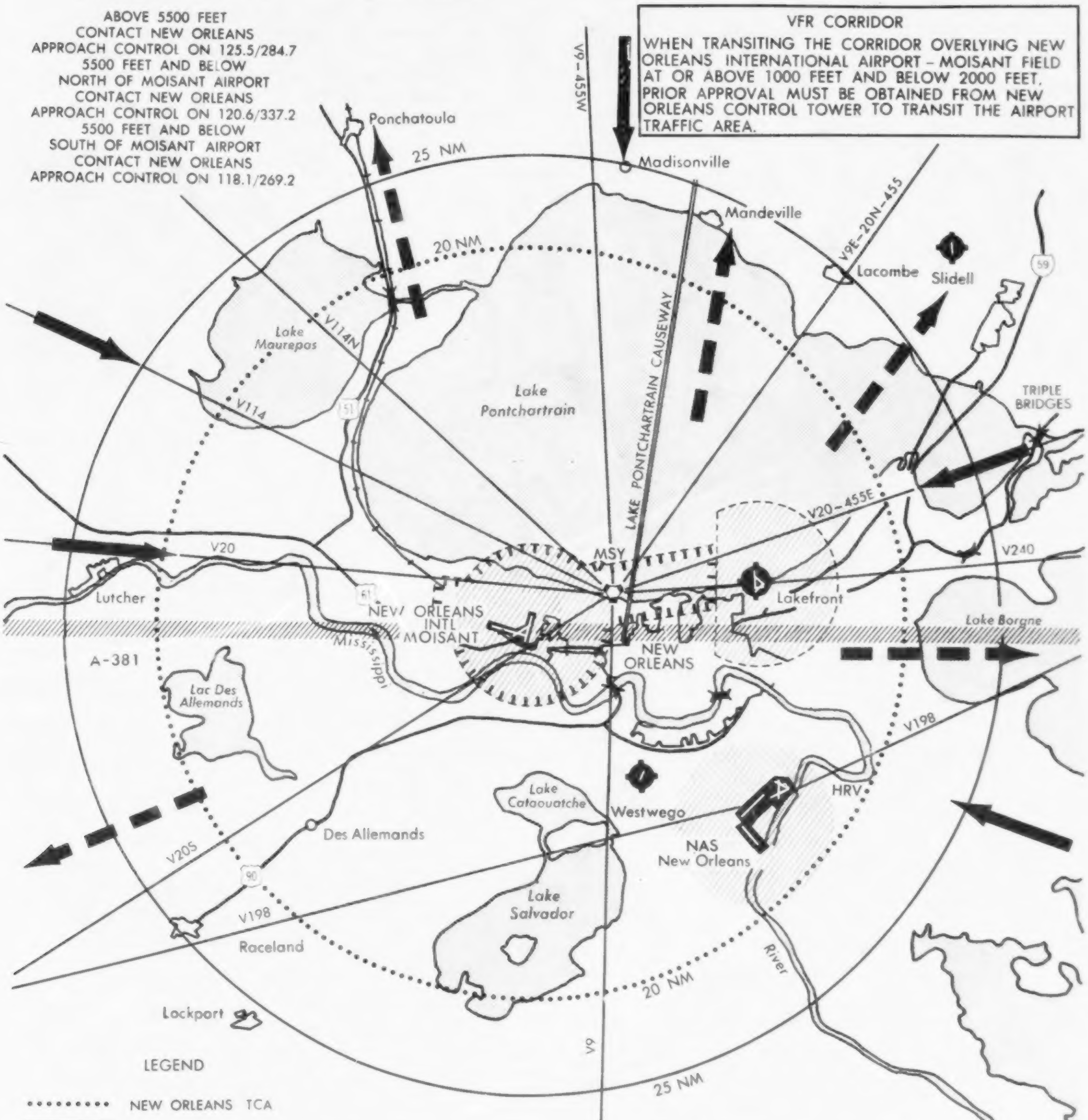
NOTE: ADVISE VFR AIRCRAFT TO TRANSIT MYRTLE BEACH AREA DIRECTLY OVER AFB TO AVOID CONJESTED AREAS.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW ORLEANS, LOUISIANA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE NEW ORLEANS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THIS AREA ARE ENCOURAGED TO CONTACT NEW ORLEANS RADAR.



ABOVE 5500 FEET
CONTACT NEW ORLEANS
APPROACH CONTROL ON 125.5/284.7
5500 FEET AND BELOW
NORTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 120.6/337.2
5500 FEET AND BELOW
SOUTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 118.1/269.2

VFR CORRIDOR

WHEN TRANSITING THE CORRIDOR OVERLYING NEW ORLEANS INTERNATIONAL AIRPORT – MOISANT FIELD AT OR ABOVE 1000 FEET AND BELOW 2000 FEET, PRIOR APPROVAL MUST BE OBTAINED FROM NEW ORLEANS CONTROL TOWER TO TRANSIT THE AIRPORT TRAFFIC AREA.

V9–455W
Ponchatoula
25 NM
Madisonville
Mandeville
V9E–20N–455
20 NM
Lacombe
Slidell
59
V114N
Lake Maurepas
LAKE PONTCHARTRAIN CAUSEWAY
V114
51
Lake Pontchartrain
TRIPLE BRIDGES
V20–455E
V20
MSY
V240
Lutcher
61
NEW ORLEANS INTL MOISANT
Lakefront
Lake Borgne
Mississippi
A-381
NEW ORLEANS
Lac Des Allemands
V198
Lake Cataouatche
Westwego
HRV
Des Allemands
NAS New Orleans
V205
90
Lake Salvador
V198
Raceland
River
20 NM
Lockport
V9
25 NM

LEGEND

•••••••• NEW ORLEANS TCA

▨ AIRPORT TRAFFIC AREAS
CONTACT THE APPROPRIATE TOWER

◀ ▬ ▬ ▬ PRIMARY TURBOJET DEPARTURE ROUTES

━━━▶ PRIMARY TURBOJET ARRIVAL ROUTES

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

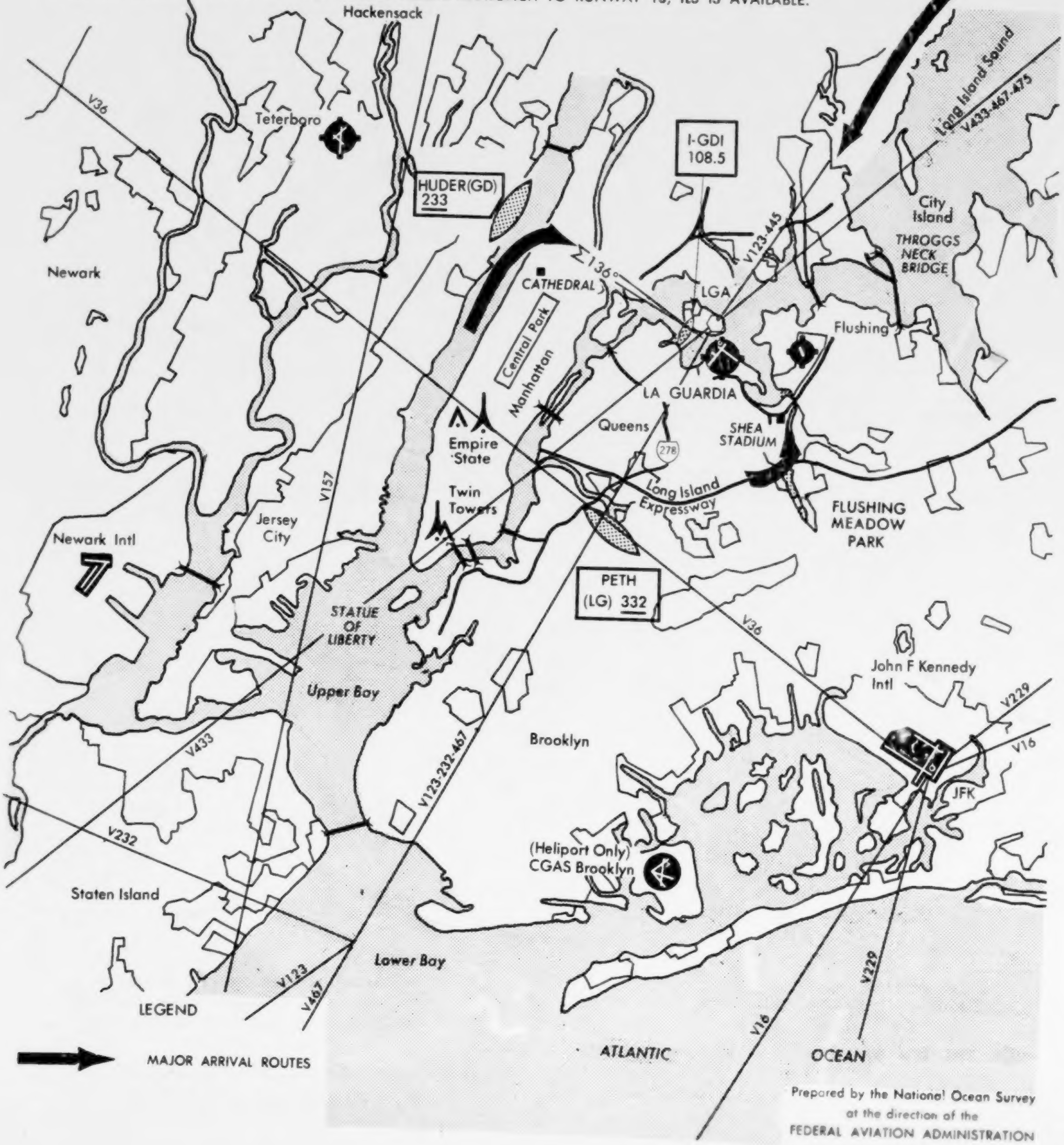
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW YORK, NY LA GUARDIA AIRPORT

THIS CHART HAS BEEN DEVELOPED TO AID PILOTS CONDUCTING VISUAL APPROACHES TO LA GUARDIA AIRPORT. 1. WHEN CONDUCTING VISUAL APPROACHES IT IS DESIRABLE THAT THE HIGHEST ALTITUDE PRACTICABLE IS MAINTAINED UNTIL DESCENT FOR LANDING IS BEGUN. 2. WHEN APPROACHING FROM THE NORTHEAST (LONG ISLAND SOUND) FLIGHT OVER THE OPEN WATER AREAS SHOULD BE MAINTAINED AS LONG AS POSSIBLE. ADHERENCE TO THE VOR TRACK IS ESSENTIAL TO MEET THE OBJECTIVES OF NOISE ABATEMENT WHEN THE VOR APPROACH IS BEING USED. 3. WHEN APPROACHING TO LAND ON RUNWAY 31, IT IS SUGGESTED THAT A FLIGHT PATH OVER THE FLUSHING MEADOW (OLD WORLD'S FAIR GROUNDS) BE MAINTAINED AS LONG AS FEASIBLE.
NOTE: WHEN CONDUCTING RIGHT TURN VISUAL APPROACH TO RUNWAY 13, ILS IS AVAILABLE.


Hackensack
V36
Teterboro
HUDER(GD)
233
Newark
I-GDI
108.5
Long Island Sound
V433-467-475
V123-445
City Island
THROGGS NECK BRIDGE
136°
CATHEDRAL
LGA
Flushing
Central Park
Manhattan
LA GUARDIA
Queens
278
SHEA STADIUM
Empire State
Twin Towers
Long Island Expressway
FLUSHING MEADOW PARK
Jersey City
Newark Intl
V157
PETH
(LG) 332
STATUE OF LIBERTY
V36
John F Kennedy Intl
V229
Upper Bay
V433
Brooklyn
V16
V123-232-467
JFK
V232
(Heliport Only)
CGAS Brooklyn
Staten Island
Lower Bay
V123
V467
V229
V16
ATLANTIC
OCEAN

LEGEND

➡ MAJOR ARRIVAL ROUTES

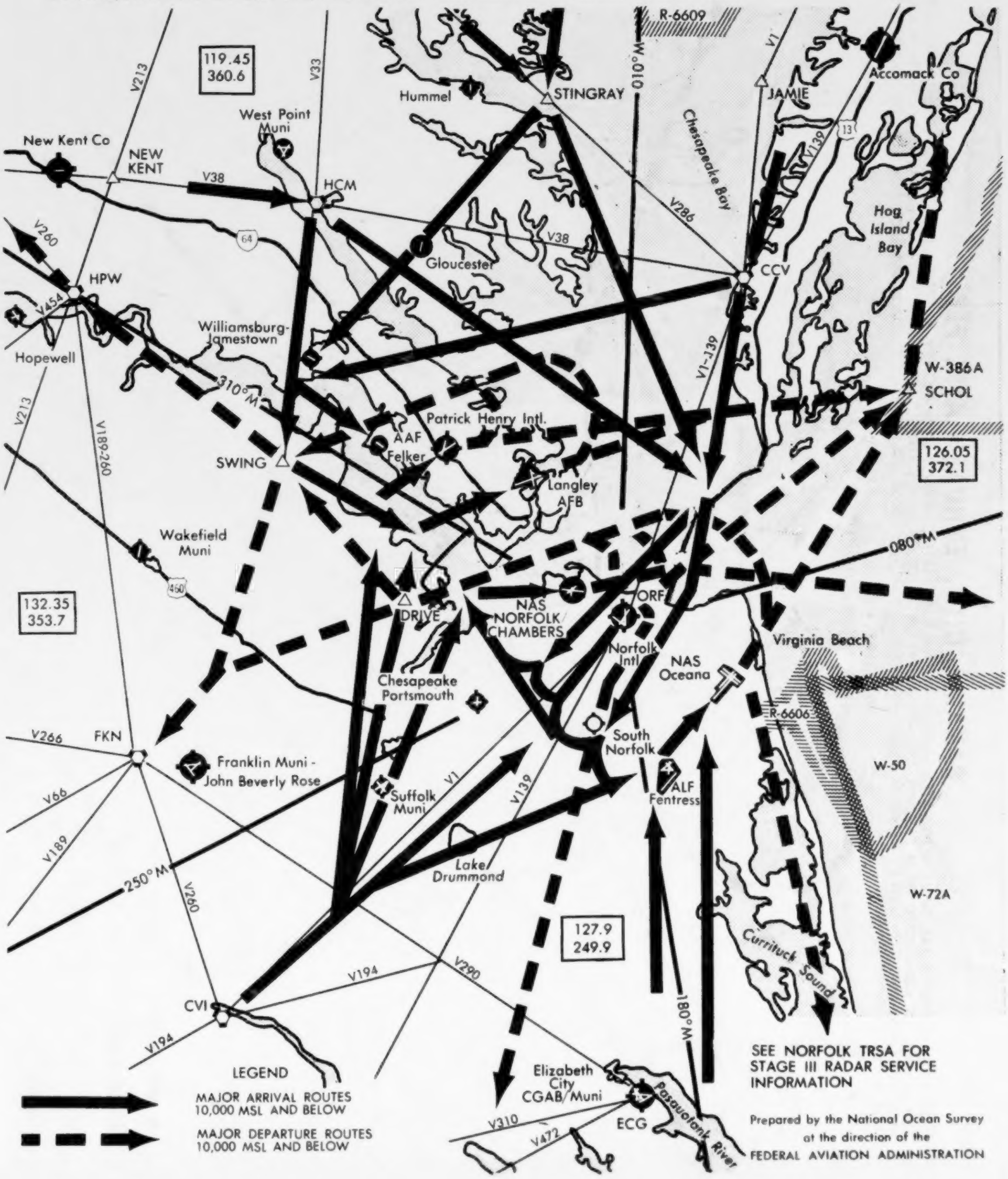
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE NORFOLK TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT NORFOLK APPROACH CONTROL. THIS TRAFFIC ADVISORY DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. STAGE III RADAR SERVICE IS AVAILABLE FOR VFR AIRCRAFT LANDING/DEPARTING LANGLEY AFB, NAS NORFOLK AND NORFOLK INTERNATIONAL AIRPORT.


R-6609
119.45
360.6
V213
V33
Hummel
STINGRAY
010°M
Chesapeake Bay
V1
JAMIE
Accomack Co
13
V139
West Point Muni
New Kent Co
NEW KENT
V38
HCM
64
V286
Hog Island Bay
V260
V38
Gloucester
CCV
HPW
V454
Williamsburg-Jamestown
Hopewell
V1-139
W-386A
SCHOL
310°M
Patrick Henry Intl.
AAF Felker
V213
SWING
V189-260
Langley AFB
126.05
372.1
080°M
Wakefield Muni
460
132.35
353.7
NAS NORFOLK/CHAMBERS
ORF
DRIVE
Norfolk Intl
Virginia Beach
NAS Oceana
Chesapeake Portsmouth
R-6606
V266
FKN
South Norfolk
Franklin Muni - John Beverly Rose
W-50
V66
Suffolk Muni
V1
V139
ALF Fentress
V189
250°M
Lake Drummond
W-72A
V260
127.9
249.9
Currituck Sound
V194
V290
CVI
180°M
V194
LEGEND
MAJOR ARRIVAL ROUTES 10,000 MSL AND BELOW
MAJOR DEPARTURE ROUTES 10,000 MSL AND BELOW
Elizabeth City CGAB/Muni
ECG
V310
V472
Pasquotank River

SEE NORFOLK TRSA FOR STAGE III RADAR SERVICE INFORMATION

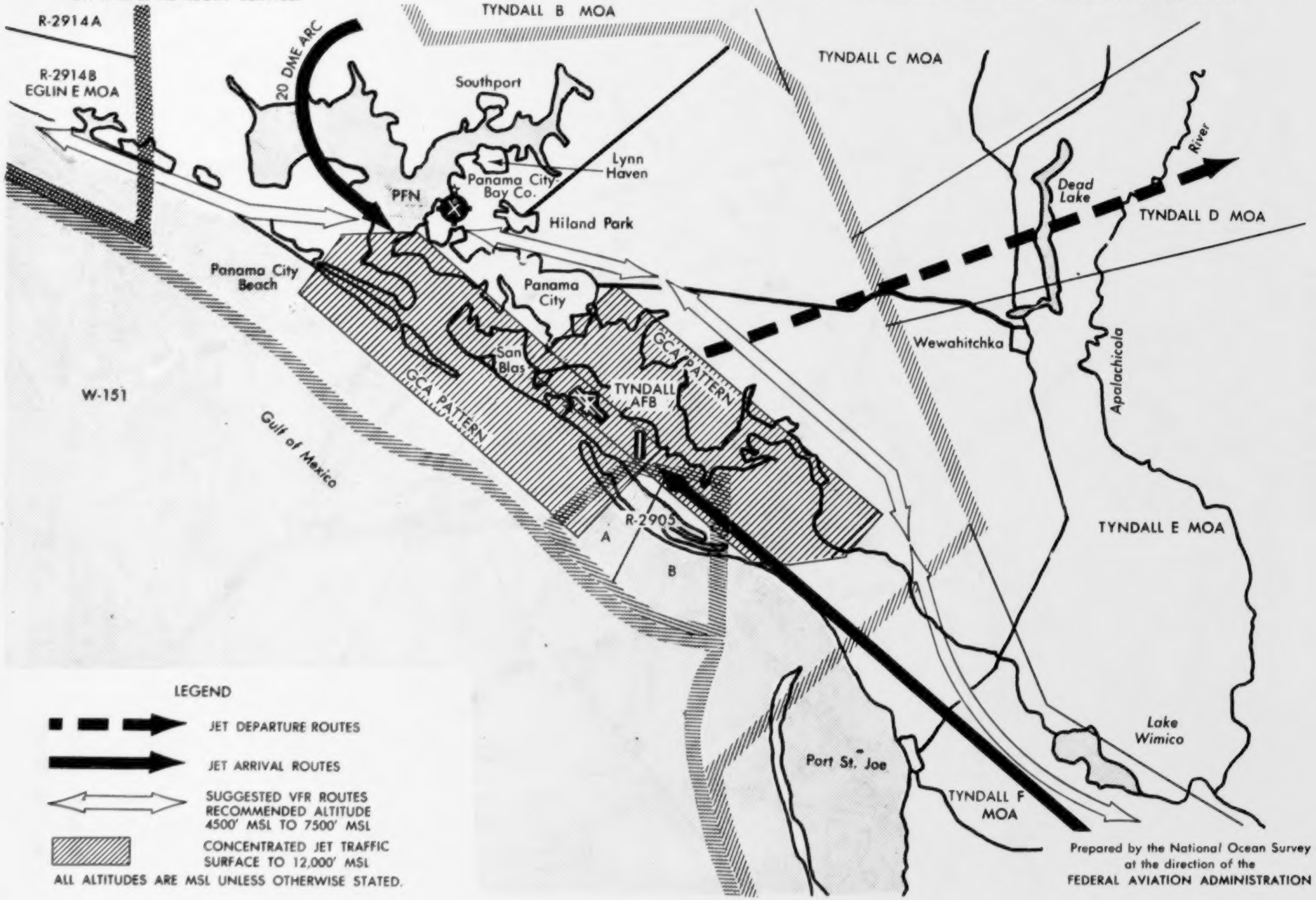
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

PANAMA CITY, TYNDALL AFB, FLA.

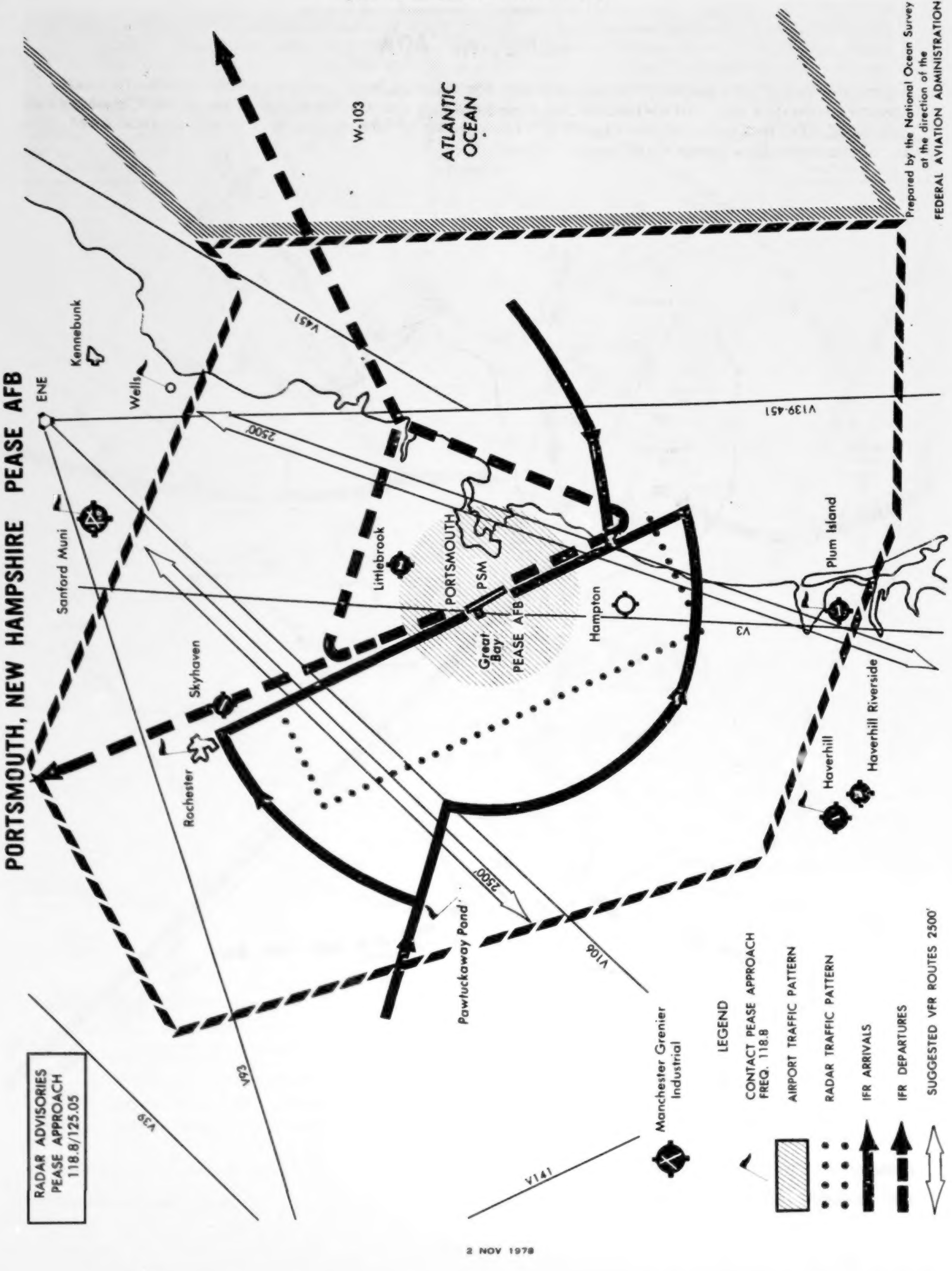
THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET AIRCRAFT TRAFFIC OPERATING IN VICINITY OF TYNDALL AFB, FLA. MANNED/UNMANNED DRONE OPERATIONS ARE CONDUCTED FROM SATELLITE DRONE RUNWAY 18/36 LOCATED 3.0 STATUTE MILES S/SE OF MAIN AIRFIELD DURING DAYLITE HOURS. VFR AIRCRAFT OVERFLYING THE AREA OR LANDING AT PANAMA CITY AIRPORT ARE URGED TO CONTACT TYNDALL APPROACH CONTROL ON 119.1 OR 119.75 FOR RADAR ADVISORY SERVICE.


R-2914A
R-2914B
EGLIN E MOA
20 DME ARC
TYNDALL B MOA
Southport
Lynn Haven
Panama City-Bay Co.
PFN
Hiland Park
TYNDALL C MOA
Dead Lake
River
TYNDALL D MOA
Panama City Beach
Panama City
Wewahitchka
Apalachicola
San Blas
TYNDALL AFB
GCA PATTERN
GCA PATTERN
W-151
Gulf of Mexico
R-2905
A
B
TYNDALL E MOA
Lake Wimico
Port St. Joe
TYNDALL F MOA
LEGEND
JET DEPARTURE ROUTES
JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES RECOMMENDED ALTITUDE 4500' MSL TO 7500' MSL
CONCENTRATED JET TRAFFIC SURFACE TO 12,000' MSL
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PORTSMOUTH, NEW HAMPSHIRE PEASE AFB


ENE
Kennebunk
Wells
V451
W-103
ATLANTIC OCEAN
V139-451
2500'
Sanford Muni
Littlebrook
PORTSMOUTH
PSM
PEASE AFB
Great Bay
Hampton
Plum Island
V3
Skyhaven
Rochester
Haverhill
Haverhill Riverside
2500'
Pawtuckaway Pond
V106
V93
V39
V141
Manchester Grenier Industrial

RADAR ADVISORIES
PEASE APPROACH
118.8/125.05

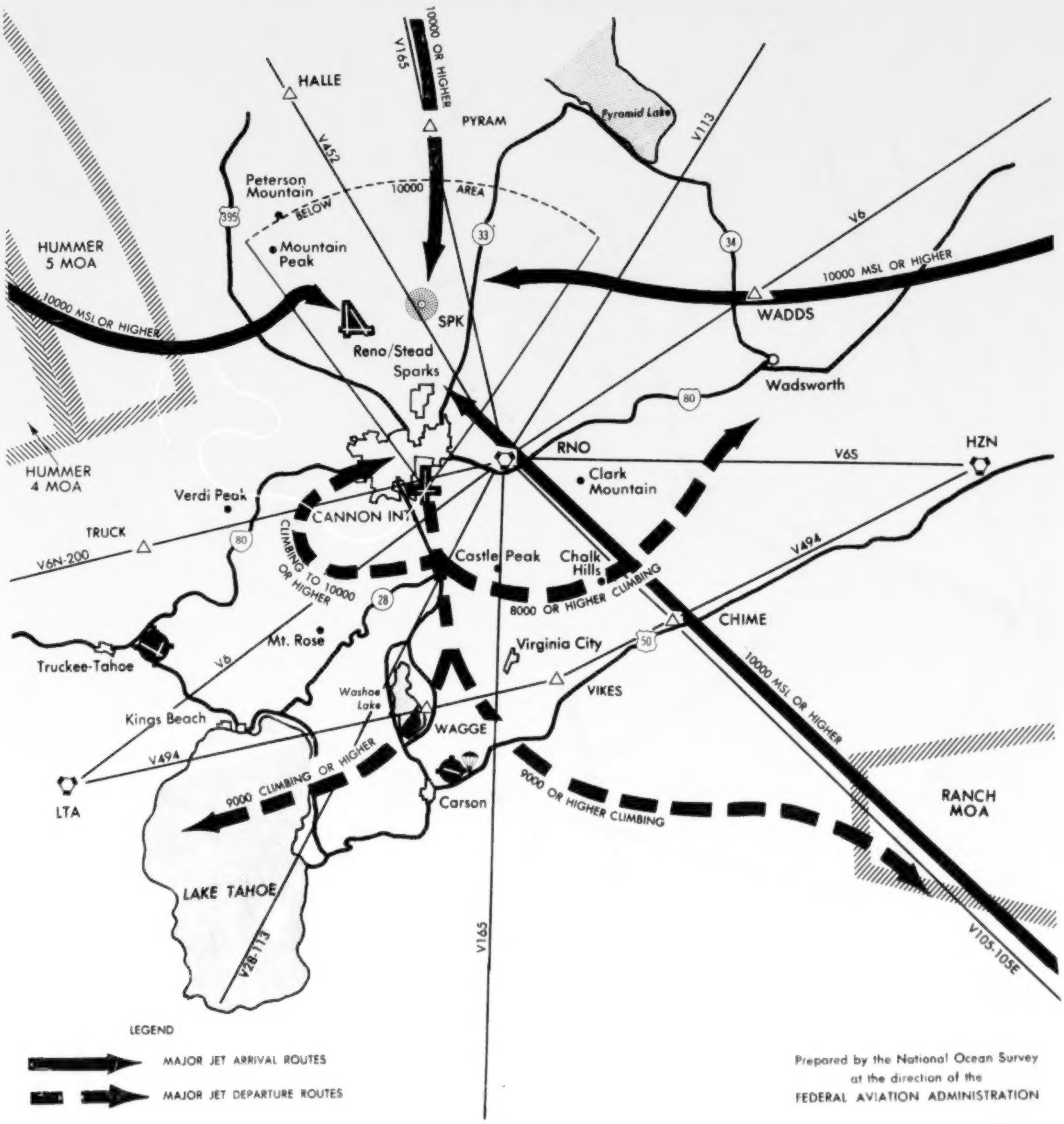
LEGEND
- ▨ CONTACT PEASE APPROACH FREQ. 118.8
- AIRPORT TRAFFIC PATTERN
- • • • RADAR TRAFFIC PATTERN
- IFR ARRIVALS
- IFR DEPARTURES
- ⇕ SUGGESTED VFR ROUTES 2500'

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

RENO, NEVADA

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. FOR STAGE II SERVICES, AIRCRAFT LANDING AT RENO OR STEAD MONITOR ATIS ON 125.8 25 NM OUT FOR FREQUENCY ASSIGNMENT. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


V165
10000 OR HIGHER
HALLE
PYRAM
Pyramid Lake
V113
V452
Peterson Mountain
10000 AREA BELOW
395
33
34
V6
10000 MSL OR HIGHER
HUMMER 5 MOA
Mountain Peak
SPK
WADDS
10000 MSL OR HIGHER
Reno/Stead
Sparks
Wadsworth
80
RNO
HZN
V6S
HUMMER 4 MOA
Clark Mountain
Verdi Peak
CANNON INT
TRUCK
V6N-200
80
CLIMBING TO 10000 OR HIGHER
Castle Peak
Chalk Hills
V494
8000 OR HIGHER CLIMBING
28
CHIME
Mt. Rose
50
Virginia City
Truckee-Tahoe
V6
VIKES
10000 MSL OR HIGHER
Washoe Lake
Kings Beach
WAGGE
V494
9000 CLIMBING OR HIGHER
9000 OR HIGHER CLIMBING
RANCH MOA
LTA
Carson
LAKE TAHOE
V28-113
V165
V105-105E
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES

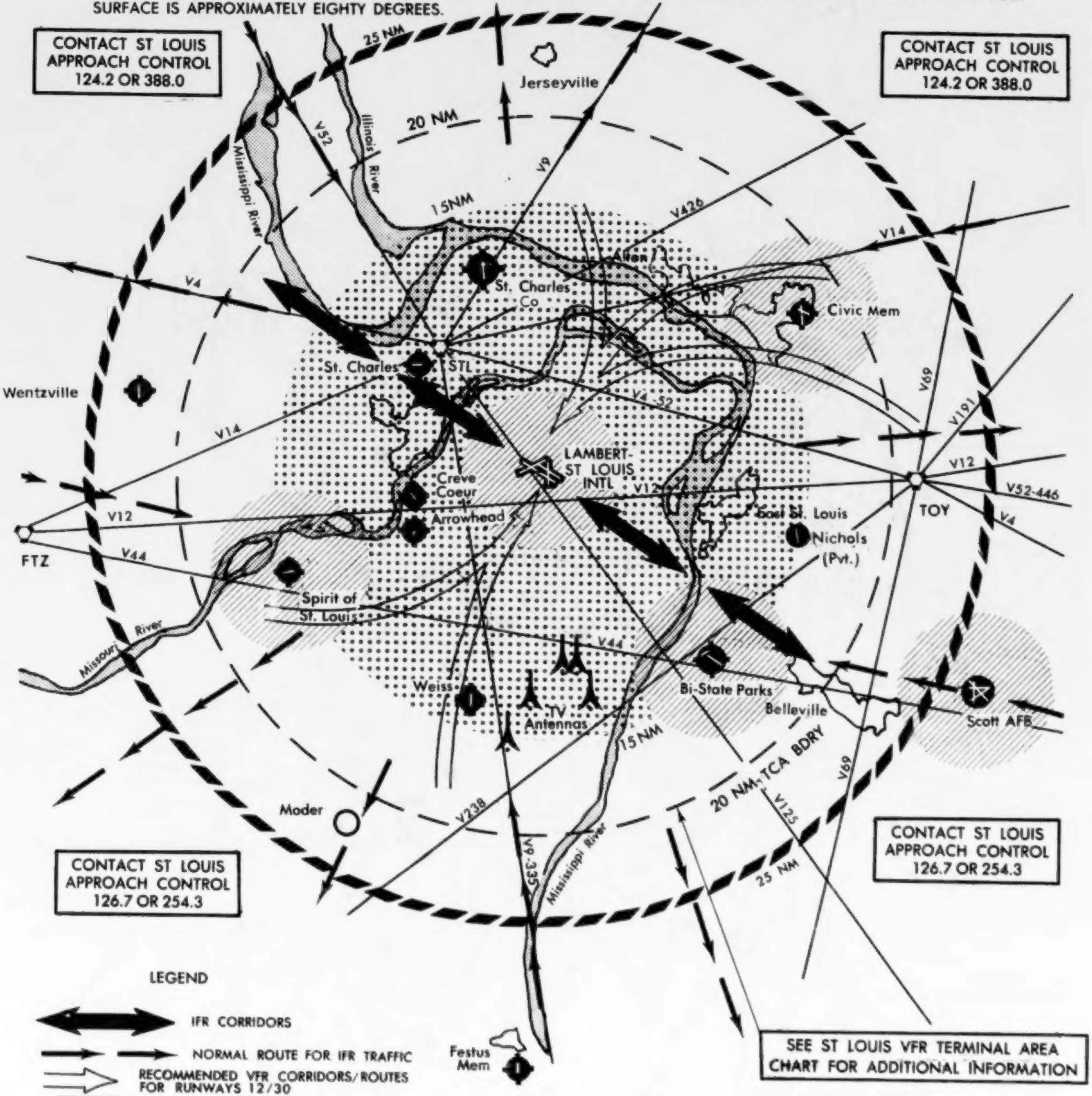
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ST. LOUIS, MISSOURI

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE ST. LOUIS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT ST. LOUIS RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC. HIGH PERFORMANCE FIGHTER TYPE JET AIRCRAFT DEPARTING MAXIMUM CLIMB ABOVE 8000 FEET, FIVE NAUTICAL MILE RADIUS OF AIRPORT. PITCH ANGLE FROM SURFACE IS APPROXIMATELY EIGHTY DEGREES.


CONTACT ST LOUIS APPROACH CONTROL 124.2 OR 388.0
CONTACT ST LOUIS APPROACH CONTROL 124.2 OR 388.0
25 NM
Jerseyville
20 NM
V52
Illinois River
Mississippi River
V9
15NM
V426
V14
V4
St. Charles Co
Alton
Civic Mem
St. Charles
STL
Wentzville
V4-52
V69
V191
V14
LAMBERT-ST LOUIS INTL
V12
V12
V52-446
Creve Coeur
Arrowhead
East St. Louis
TOY
V4
V12
FTZ
V44
Nichols (Pvt.)
Spirit of St. Louis
Missouri River
V44
Weiss
TV Antennas
Bi-State Parks
Belleville
Scott AFB
15NM
20 NM-TCA BDRY
V69
V125
V238
Moder
V9-335
Mississippi River
25 NM
CONTACT ST LOUIS APPROACH CONTROL 126.7 OR 254.3
CONTACT ST LOUIS APPROACH CONTROL 126.7 OR 254.3
Festus Mem
SEE ST LOUIS VFR TERMINAL AREA CHART FOR ADDITIONAL INFORMATION

LEGEND

- ⟷ IFR CORRIDORS
- → NORMAL ROUTE FOR IFR TRAFFIC
- ⇨ RECOMMENDED VFR CORRIDORS/ROUTES FOR RUNWAYS 12/30
- ▨ AIRPORT TRAFFIC AREA--CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87
- ⁘ AREA OF HEAVY TRAFFIC BETWEEN 5 NM AND 15 NM FROM 2400' TO 8000' MSL
- ▬ AREA OF HEAVY TRAFFIC BETWEEN 15 NM AND 25 NM FROM 5000' TO 10,000' MSL

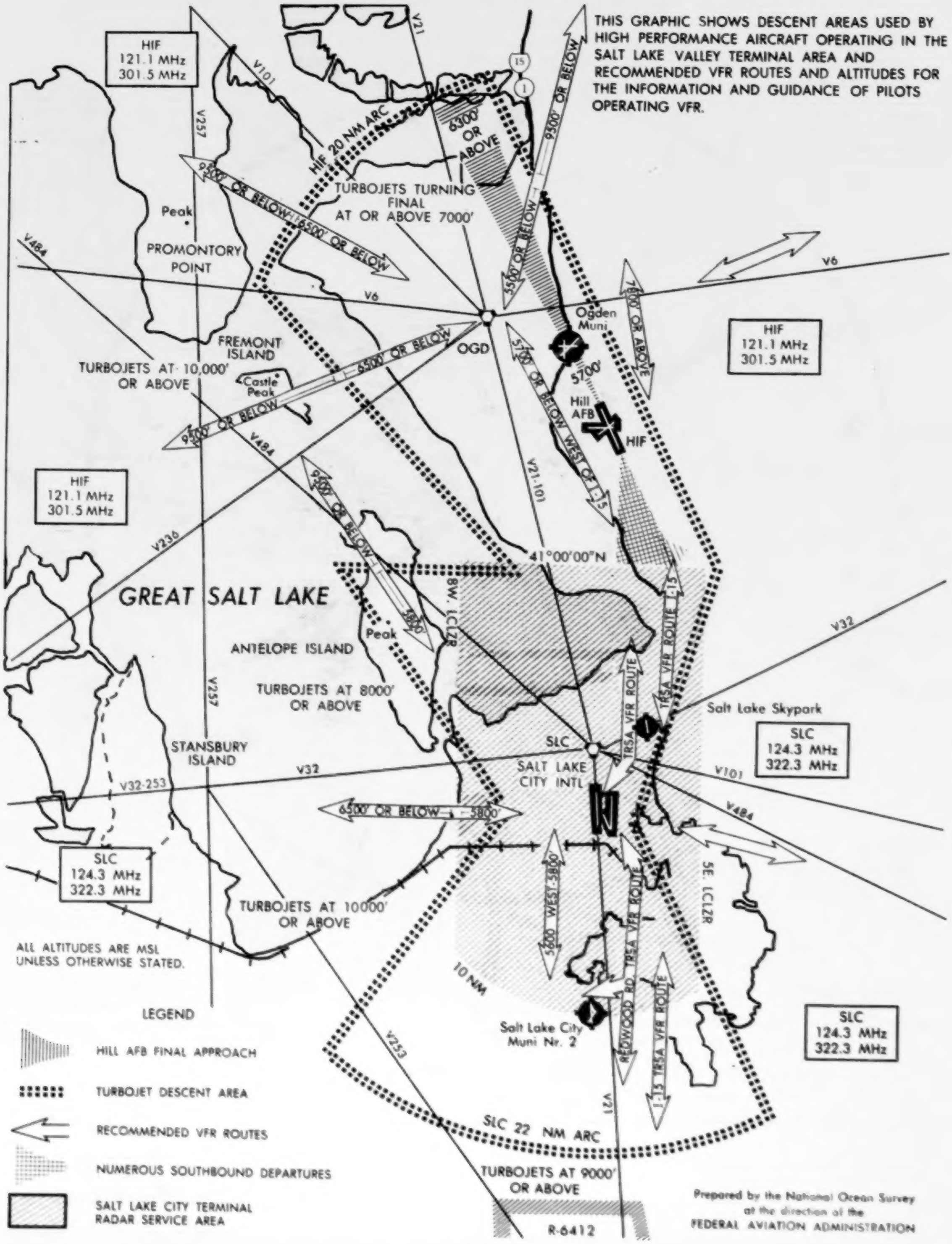
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
of the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SALT LAKE VALLEY, UTAH

THIS GRAPHIC SHOWS DESCENT AREAS USED BY HIGH PERFORMANCE AIRCRAFT OPERATING IN THE SALT LAKE VALLEY TERMINAL AREA AND RECOMMENDED VFR ROUTES AND ALTITUDES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR.


HIF
121.1 MHz
301.5 MHz
V21
15
1
V101
V257
HIF 20 NM ARC
6300' OR ABOVE
9300' OR BELOW
9500' OR BELOW 6500' OR BELOW
TURBOJETS TURNING FINAL AT OR ABOVE 7000'
Peak
PROMONTORY POINT
V484
V6
5500' OR BELOW
7800' OR ABOVE
Ogden Muni
OGD
FREMONT ISLAND
6500' OR BELOW
9500' OR BELOW
TURBOJETS AT 10,000' OR ABOVE
Castle Peak
5700' OR BELOW WEST OF I-15
5700'
Hill AFB
HIF
V21-101
9500' OR BELOW 5800'
V236
41°00'00"N
GREAT SALT LAKE
8W. LCLZR
Peak
ANTELOPE ISLAND
TURBOJETS AT 8000' OR ABOVE
TRSA VFR ROUTE
TRSA VFR ROUTE I-15
Salt Lake Skypark
V32
SLC
124.3 MHz
322.3 MHz
STANSBURY ISLAND
SLC
SALT LAKE CITY INTL
V101
V32-253
V32
6500' OR BELOW 5800'
V484
5E. LCLZR
5600' WEST 5800'
TRSA VFR ROUTE
TURBOJETS AT 10000' OR ABOVE
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
10 NM
REDWOOD RD TRSA VFR ROUTE
I-15 TRSA VFR ROUTE
Salt Lake City Muni Nr. 2
V253
V21
SLC 22 NM ARC
TURBOJETS AT 9000' OR ABOVE
R-6412
LEGEND
HILL AFB FINAL APPROACH
TURBOJET DESCENT AREA
RECOMMENDED VFR ROUTES
NUMEROUS SOUTHBOUND DEPARTURES
SALT LAKE CITY TERMINAL RADAR SERVICE AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

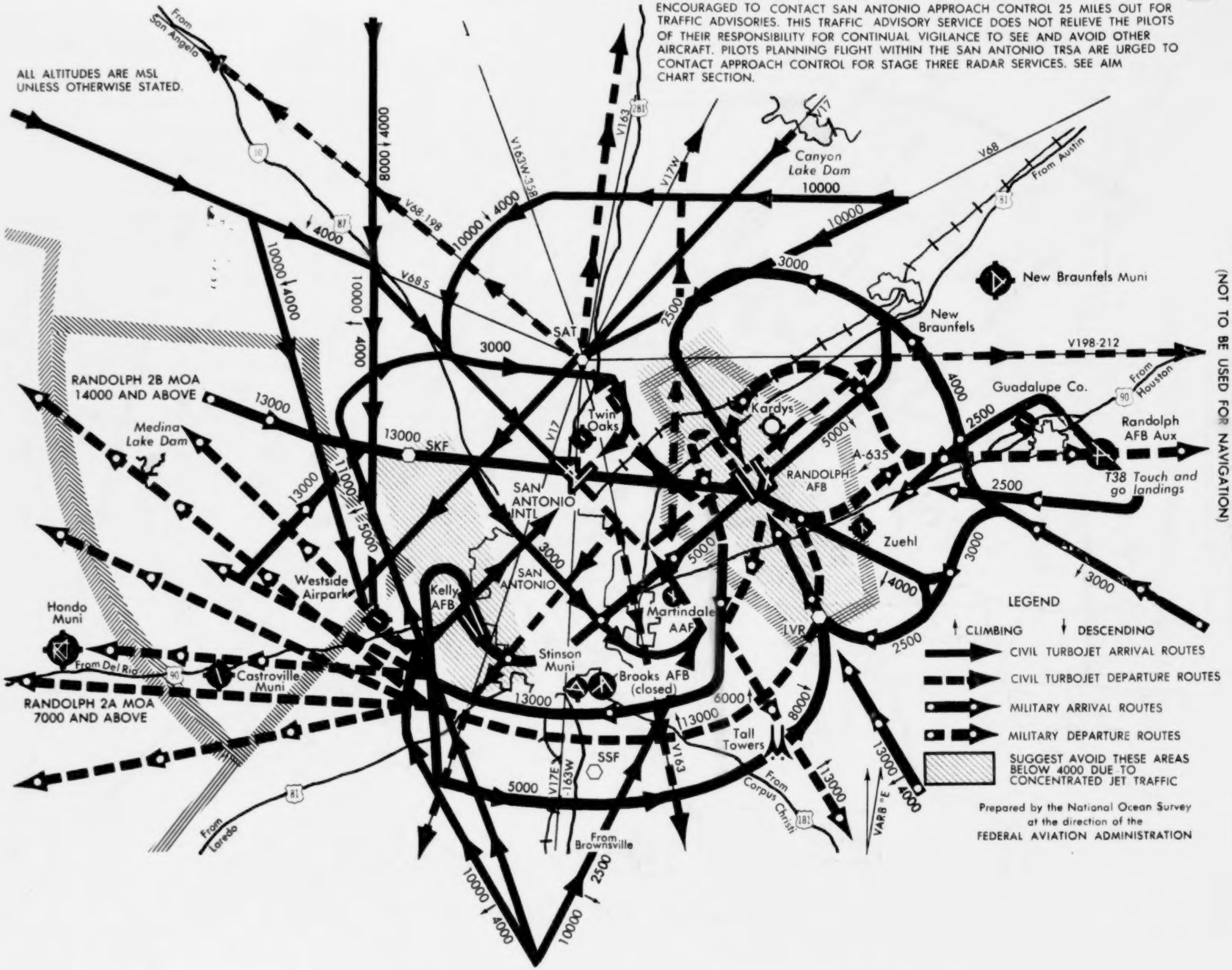
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SAN ANTONIO, TEXAS

RANDOLPH AFB T-37/T-38 ARRIVAL/DEPARTURE ROUTES AND CIVIL [illegible]ET ARRIVAL/DEPARTURE ROUTES FOR SAN ANTONIO INTERNATIONAL

HIGH VOLUME OF JET OPERATIONS ALONG ROUTES INDICATED VFR PILOTS ARE ENCOURAGED TO CONTACT SAN ANTONIO APPROACH CONTROL 25 MILES OUT FOR TRAFFIC ADVISORIES. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. PILOTS PLANNING FLIGHT WITHIN THE SAN ANTONIO TRSA ARE URGED TO CONTACT APPROACH CONTROL FOR STAGE THREE RADAR SERVICES. SEE AIM CHART SECTION.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

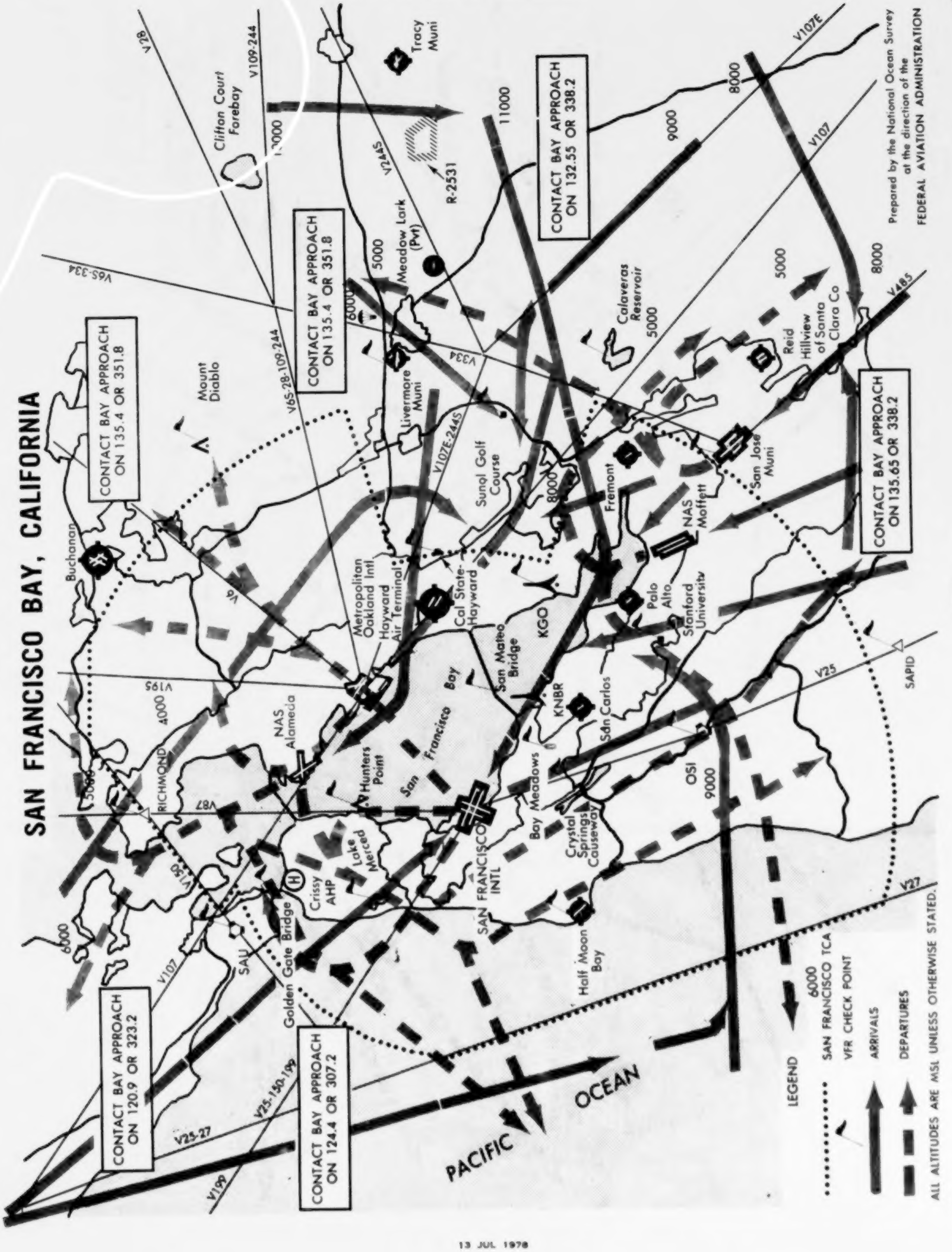

From San Angelo
10
87
8000 ↓ 4000
V68-198
10000 ↓ 4000
V163W-358
V163
281
V17W
V17
Canyon Lake Dam
10000
V68
From Austin
81
4000
10000 ↓ 4000
10000 ↓ 4000
V68 S
3000
SAT
2500
New Braunfels Muni
New Braunfels
V198-212
From Houston
90
Guadalupe Co.
Randolph AFB Aux
T38 Touch and go landings
RANDOLPH 2B MOA 14000 AND ABOVE
13000
Medina Lake Dam
13000
SKF
Twin Oaks
Kardys
5000
A-635
RANDOLPH AFB
4000
2500
SAN ANTONIO INTL
11000
5000
3000
Zuehl
Westside Airpark
Kelly AFB
SAN ANTONIO
5000
Martindale AAF
4000
3000
3000
Hondo Muni
From Del Rio
Castroville Muni
RANDOLPH 2A MOA 7000 AND ABOVE
Stinson Muni
13000
Brooks AFB (closed)
6000
13000
LVR
8000
2500
Tall Towers
13000
SSF
V17E
-163W
V163
5000
From Corpus Christi
181
13000 ↓ 4000
VAR8 °E
From Laredo
81
From Brownsville
10000 ↓ 4000
10000
2500
LEGEND
↑ CLIMBING
↓ DESCENDING
CIVIL TURBOJET ARRIVAL ROUTES
CIVIL TURBOJET DEPARTURE ROUTES
MILITARY ARRIVAL ROUTES
MILITARY DEPARTURE ROUTES
SUGGEST AVOID THESE AREAS BELOW 4000 DUE TO CONCENTRATED JET TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE

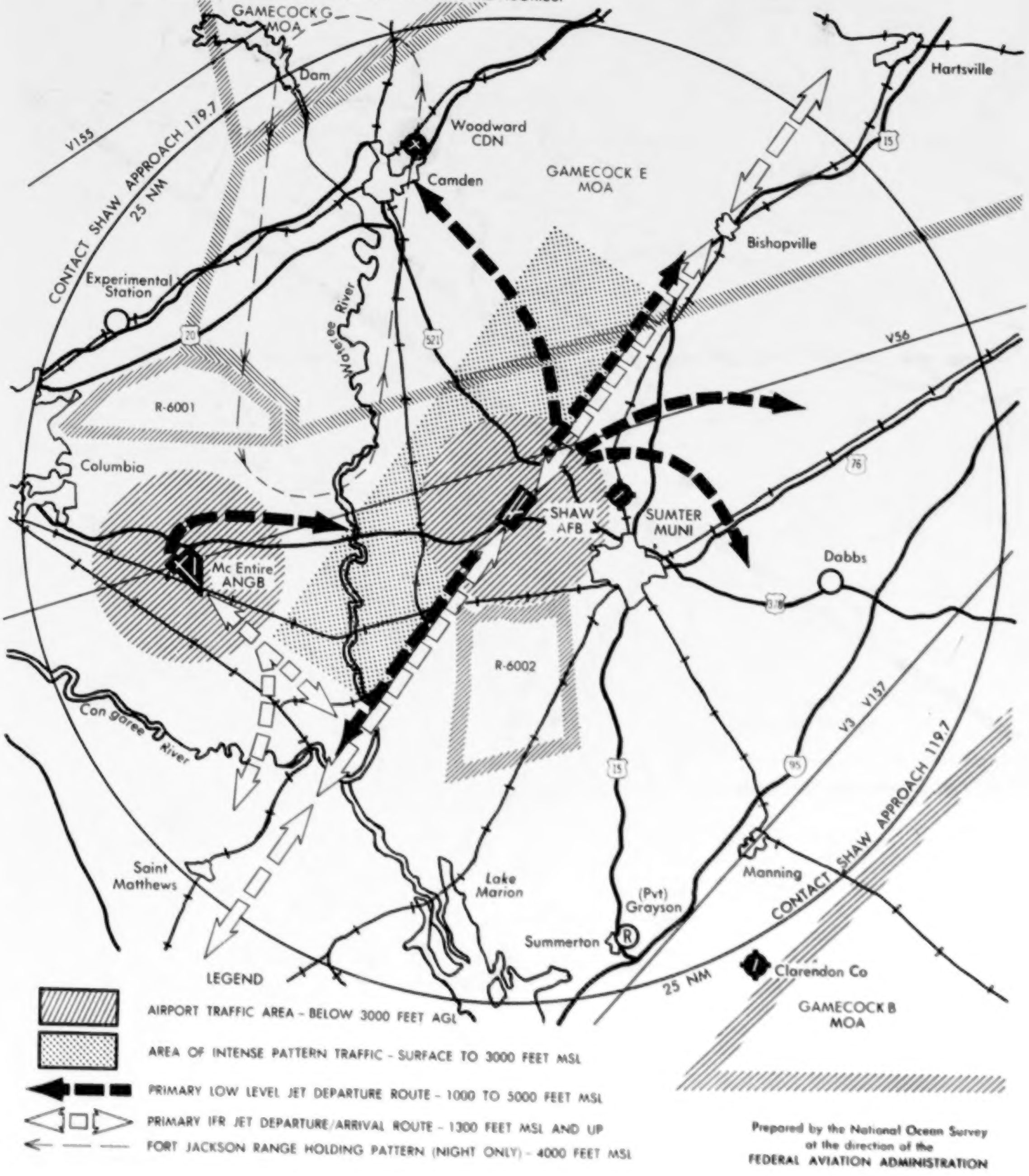
(NOT TO BE USED FOR NAVIGATION)


SAN FRANCISCO BAY, CALIFORNIA
CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 132.55 OR 338.2
CONTACT BAY APPROACH ON 120.9 OR 323.2
CONTACT BAY APPROACH ON 124.4 OR 307.2
CONTACT BAY APPROACH ON 135.65 OR 338.2
Buchanan
Mount Diablo
Clifton Court Forebay
Tracy Muni
Meadow Lark (Pvt)
R-2531
Livermore Muni
Calaveras Reservoir
Reid Hillview of Santa Clara Co
San Jose Muni
Sunol Golf Course
Fremont
NAS Moffett
Palo Alto
Stanford University
Metropolitan Oakland Intl
Hayward Air Terminal
Cal State-Hayward
San Mateo Bridge
KGO
KNBR
San Carlos
NAS Alameda
Hunters Point
San Francisco Bay
Bay Meadows
Crystal Springs Causeway
SAN FRANCISCO INTL
Lake Merced
Crissy AHP
Golden Gate Bridge
SAU
RICHMOND
Half Moon Bay
OSI
SAPID
PACIFIC OCEAN
V28
V109-244
V6S-334
V6S-28-109-244
V334
V244S
V107E-244S
V107E
V107
V485
V6
V195
V87
V108
V25
V27
V25-27
V25-150-199
V199
3000
4000
5000
5000
5000
6000
6000
8000
8000
8000
8000
9000
9000
11000
LEGEND
SAN FRANCISCO TCA
VFR CHECK POINT
ARRIVALS
DEPARTURES
6000
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SHAW AFB SOUTH CAROLINA

THIS MAP SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE SHAW TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA AT OR BELOW 6000 FEET MSL ARE ENCOURAGED TO CONTACT SHAW APPROACH CONTROL ON 119.7 FOR TRAFFIC ADVISORIES.

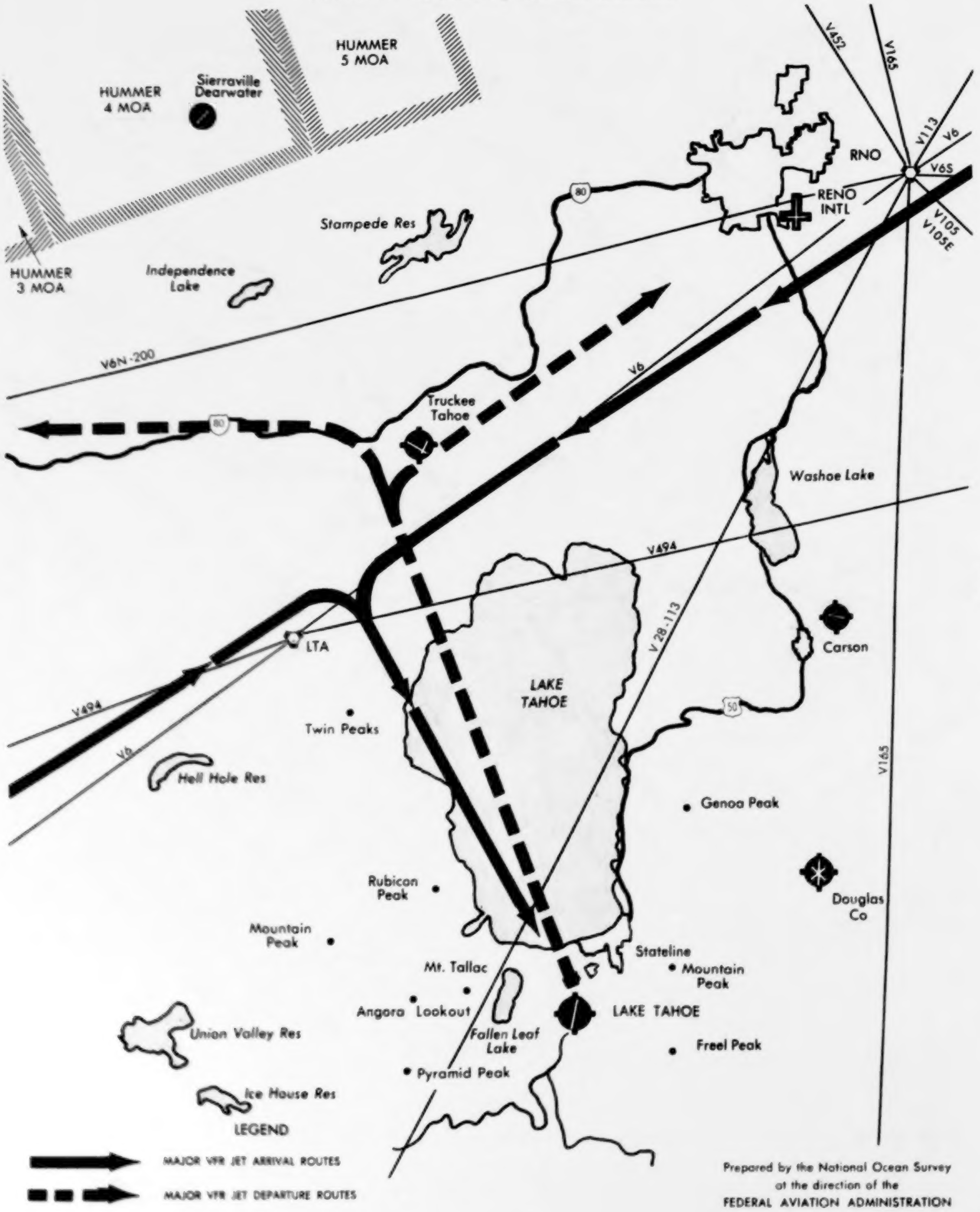

GAMECOCK G MOA
Dam
V155
CONTACT SHAW APPROACH 119.7
25 NM
Woodward CDN
Camden
GAMECOCK E MOA
Hartsville
15
Bishopville
Experimental Station
20
Wateree River
521
V56
R-6001
Columbia
76
SHAW AFB
SUMTER MUNI
Mc Entire ANGB
Dabbs
378
R-6002
Congaree River
15
95
V3 V157
CONTACT SHAW APPROACH 119.7
Saint Matthews
Lake Marion
Manning
(Pvt) Grayson
Summerton
25 NM
Clarendon Co
GAMECOCK B MOA
LEGEND
AIRPORT TRAFFIC AREA - BELOW 3000 FEET AGL
AREA OF INTENSE PATTERN TRAFFIC - SURFACE TO 3000 FEET MSL
PRIMARY LOW LEVEL JET DEPARTURE ROUTE - 1000 TO 5000 FEET MSL
PRIMARY IFR JET DEPARTURE/ARRIVAL ROUTE - 1300 FEET MSL AND UP
FORT JACKSON RANGE HOLDING PATTERN (NIGHT ONLY) - 4000 FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

13 JUL 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAHOE VALLEY, CALIFORNIA


HUMMER
5 MOA
HUMMER
4 MOA
Sierraville
Dearwater
HUMMER
3 MOA
V452
V165
V113
V6
V6S
RNO
RENO
INTL
V105
V105E
80
Stampede Res
Independence
Lake
V6N-200
V6
Truckee
Tahoe
80
Washoe Lake
V494
V28-113
Carson
LTA
LAKE
TAHOE
50
V494
V6
Twin Peaks
Hell Hole Res
V165
Genoa Peak
Rubicon
Peak
Douglas
Co
Mountain
Peak
Stateline
Mountain
Peak
Mt. Tallac
Angora Lookout
LAKE TAHOE
Fallen Leaf
Lake
Union Valley Res
Freel Peak
Pyramid Peak
Ice House Res
LEGEND
MAJOR VFR JET ARRIVAL ROUTES
MAJOR VFR JET DEPARTURE ROUTES

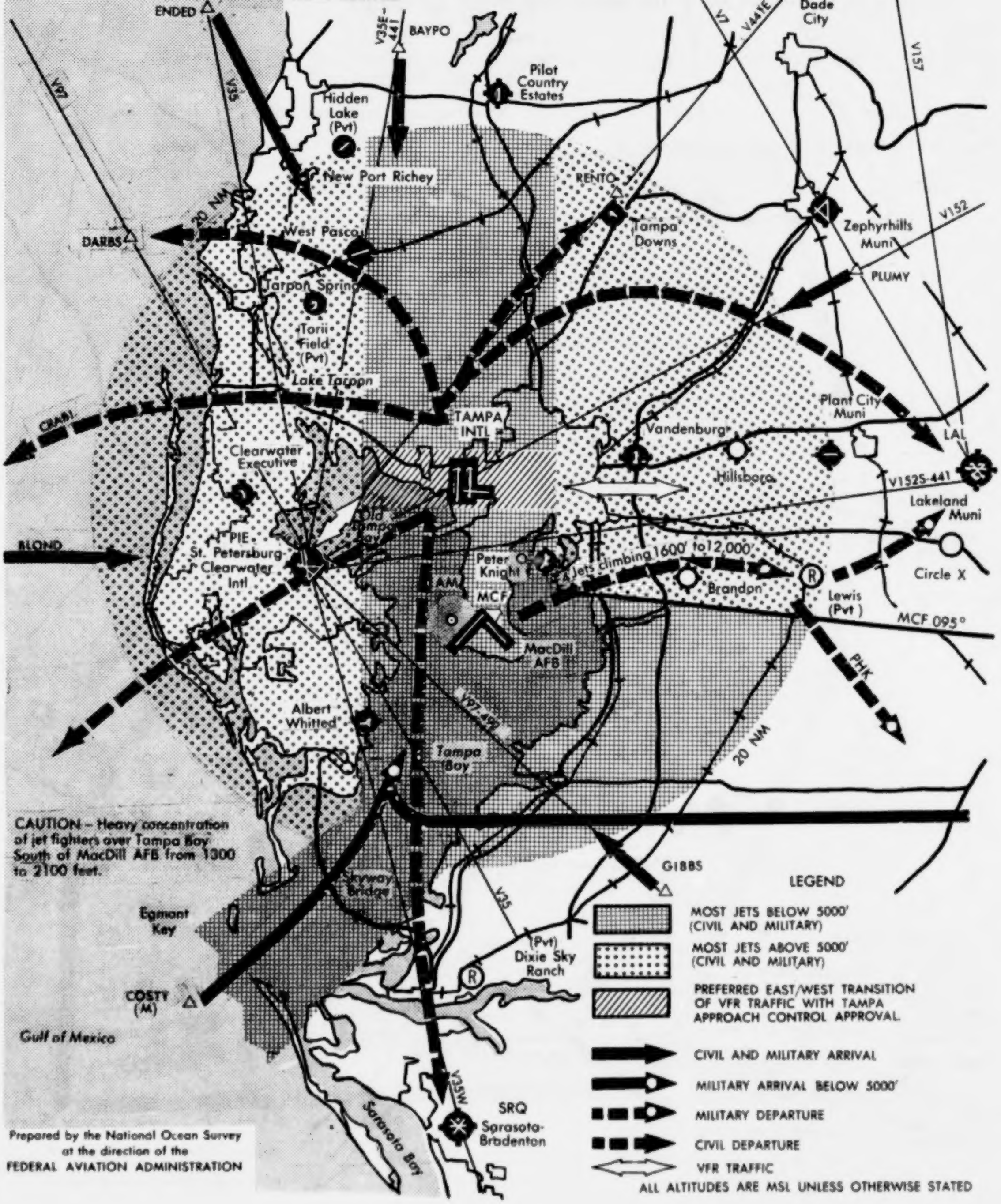
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

18 MAY 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA

VFR AIRCRAFT ARE STRONGLY URGED TO CONTACT TAMPA APPROACH CONTROL PRIOR TO 15 MILES FROM TAMPA INTERNATIONAL FOR STAGE THREE SERVICE.


ENDED
V35
V35E-441
BAYPO
V7
V44E
Dade City
V157
V97
Pilot Country Estates
Hidden Lake (Pvt)
New Port Richey
RENTO
Tampa Downs
Zephyrhills Muni
V152
20 NM
DARBS
West Pasco
PLUMY
Tarpon Springs
Torii Field (Pvt)
Lake Tarpon
CRABI
TAMPA INTL
Plant City Muni
Vandenburg
LAL
Clearwater Executive
Hillsboro
V152S-441
Lakeland Muni
Old Tampa Bay
BLOND
PIE
St. Petersburg-Clearwater Intl
Peter Knight
Jets climbing 1600' to 12,000'
Circle X
Brandon
R
Lewis (Pvt)
MCF 095°
MCF
MacDill AFB
PHK
Albert Whitted
V97-49E
Tampa Bay
20 NM
Skyway Bridge
GIBBS
V35
Egmont Key
(Pvt) Dixie Sky Ranch
R
COSTY (M)
Gulf of Mexico
V35W
SRQ Sarasota-Bradenton
Sarasota Bay
LEGEND
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
PREFERRED EAST/WEST TRANSITION OF VFR TRAFFIC WITH TAMPA APPROACH CONTROL APPROVAL
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL BELOW 5000'
MILITARY DEPARTURE
CIVIL DEPARTURE
VFR TRAFFIC
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

CAUTION – Heavy concentration of jet fighters over Tampa Bay South of MacDill AFB from 1300 to 2100 feet.

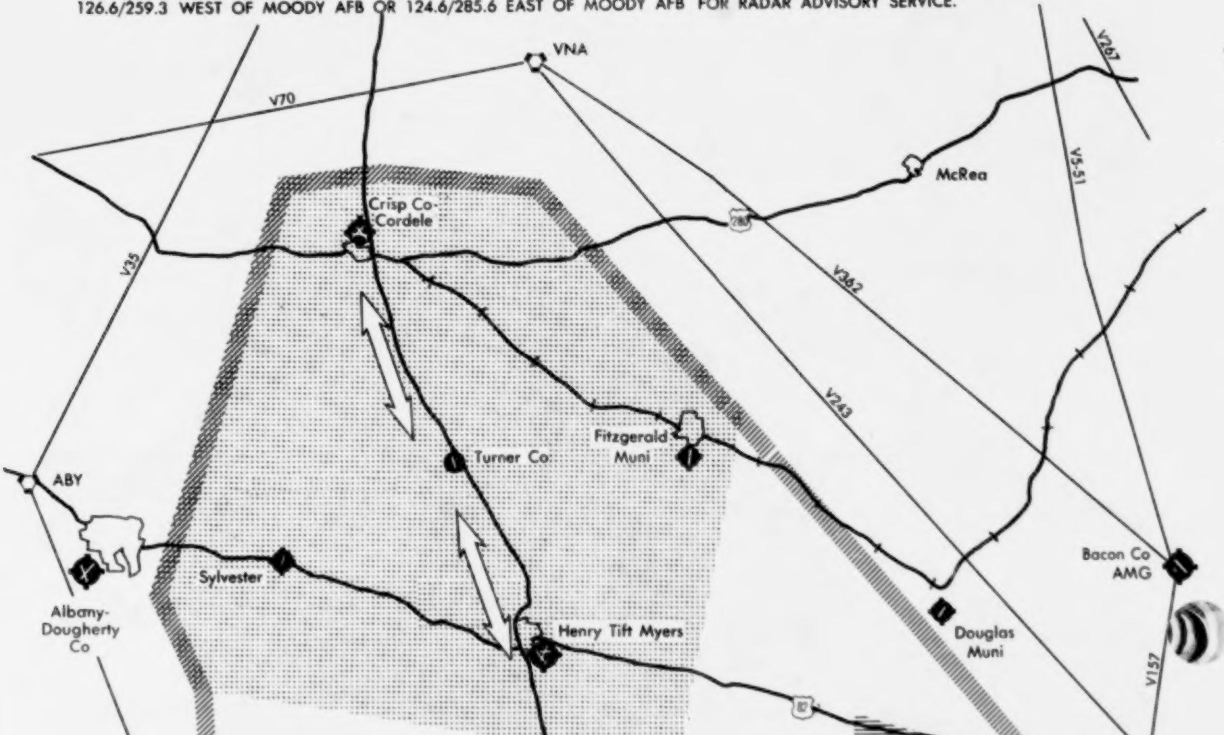
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALDOSTA, MOODY AFB, GA.

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF F-4 AIRCRAFT OPERATING IN THE VICINITY OF MOODY AFB, GEORGIA. VFR AIRCRAFT OVERFLYING THE AREA ARE URGED TO CONTACT VALDOSTA APPROACH ON 126.6/259.3 WEST OF MOODY AFB OR 124.6/285.6 EAST OF MOODY AFB FOR RADAR ADVISORY SERVICE.


VNA
V70
V267
V5-51
McRea
280
Crisp Co-Cordele
V35
V362
V243
Fitzgerald Muni
Turner Co
ABY
Sylvester
Albany-Dougherty Co
Bacon Co AMG
Douglas Muni
Henry Tift Myers
82
V157
AYS
MOODY 1 MOA
8000' TO BUT NOT INCLUDING 18,000'
75
Berrien Co
10 NM
V35-159
Spence
Cook Co
MGR
Moultrie Muni
A-302
MOODY 2 MOA
500' AGL TO BUT NOT INCLUDING 8000' MSL
Homerville
VAD
MOODY AFB
84
10 NM
Thomasville Muni
Quitman Brooks Co
Valdosta Muni
VLD
GEF
V198
TAY
LEGEND
8000' AND ABOVE OR AS ASSIGNED BY ATC
CONCENTRATED JET TRAFFIC 3,000 AND BELOW
DEPARTURE ROUTE
ARRIVAL/DEPARTURE ROUTES
RECOMMENDED VFR ROUTE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALPARAISO, FLORIDA
SPECIAL AIR TRAFFIC RULES
(VFR OR IFR CONDITIONS)

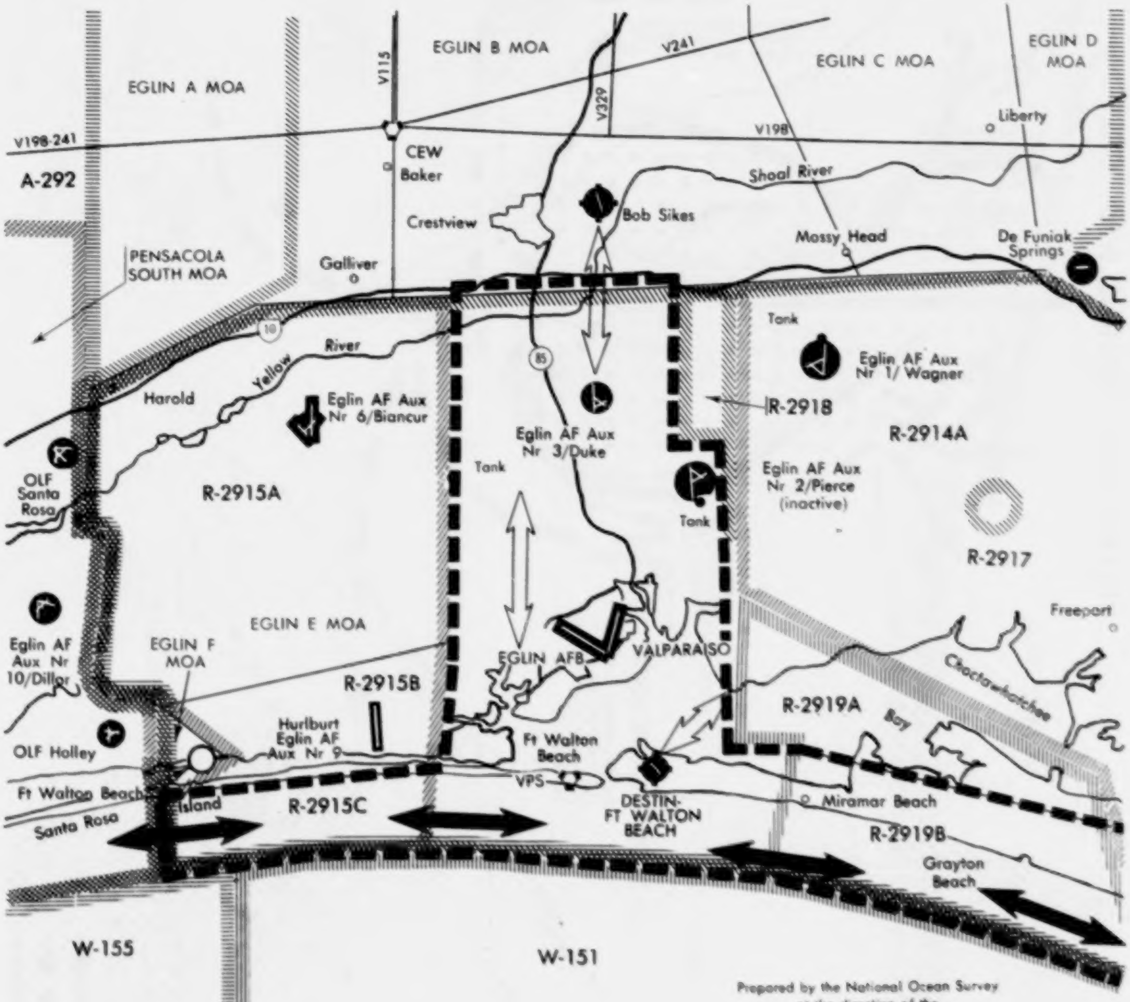
A SPECIAL RULE IN EFFECT REQUIRES PILOTS TO OBTAIN AN ATC CLEARANCE WHEN OPERATING IN AND OUT OF THE EGLIN/VALPARAISO, FLORIDA AREA.

▬ ▬ ▬ ▬ ▬ HI-DENSITY JET TRAFFIC 3000' AND BELOW

⇔ CLEARANCE REQUIRED PRIOR TO ENTERING NORTH/SOUTH CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED N/S ROUTINGS - 3500' OR ABOVE

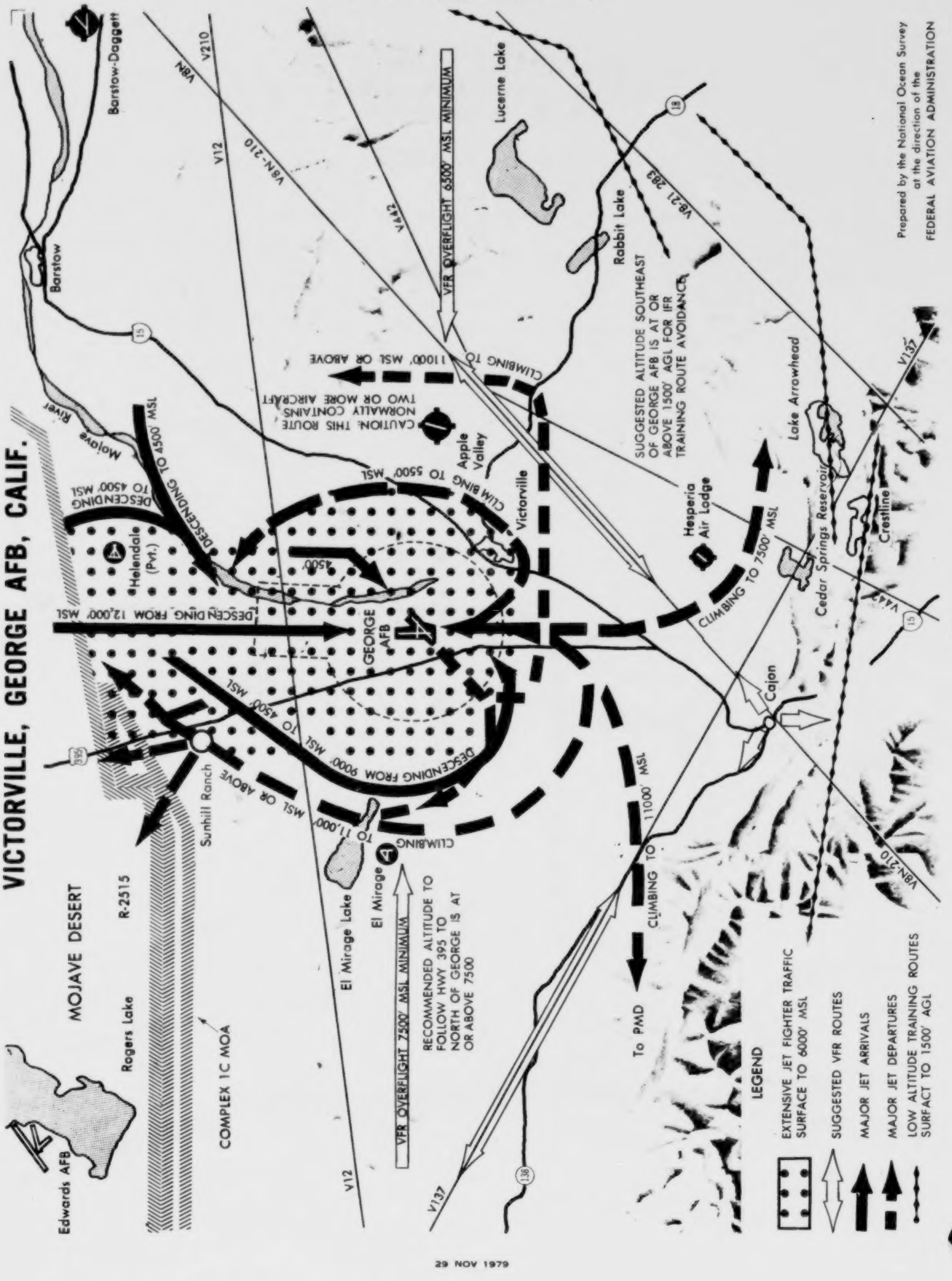
⬌ ADVISORIES REQUIRED PRIOR TO OPERATING WITHIN EAST/WEST CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED E/W ROUTINGS - BELOW 8500'

(HEAVY DENSE JET TRAFFIC 3000' AND BELOW)


EGLIN A MOA
EGLIN B MOA
EGLIN C MOA
EGLIN D MOA
V115
V241
V329
V198
V198-241
A-292
CEW
Baker
Liberty
Shoal River
Crestview
Bob Sikes
Mossy Head
De Funiak Springs
PENSACOLA SOUTH MOA
Galliver
10
Yellow
River
Tank
Harold
Eglin AF Aux Nr 6/Biancur
85
Eglin AF Aux Nr 1/ Wagner
R-2918
R-2914A
Eglin AF Aux Nr 3/Duke
Tank
OLF Santa Rosa
R-2915A
Eglin AF Aux Nr 2/Pierce (inactive)
Tank
R-2917
Freeport
EGLIN E MOA
Eglin AF Aux Nr 10/Dillor
EGLIN F MOA
EGLIN AFB
VALPARAISO
Choctawhatchee
R-2915B
R-2919A
Bay
OLF Holley
Hurlburt Eglin AF Aux Nr 9
Ft Walton Beach
VPS
Ft Walton Beach
Island
Santa Rosa
R-2915C
DESTIN-FT WALTON BEACH
Miramar Beach
R-2919B
Grayton Beach
W-155
W-151

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)



VICTORVILLE, GEORGE AFB, CALIF.

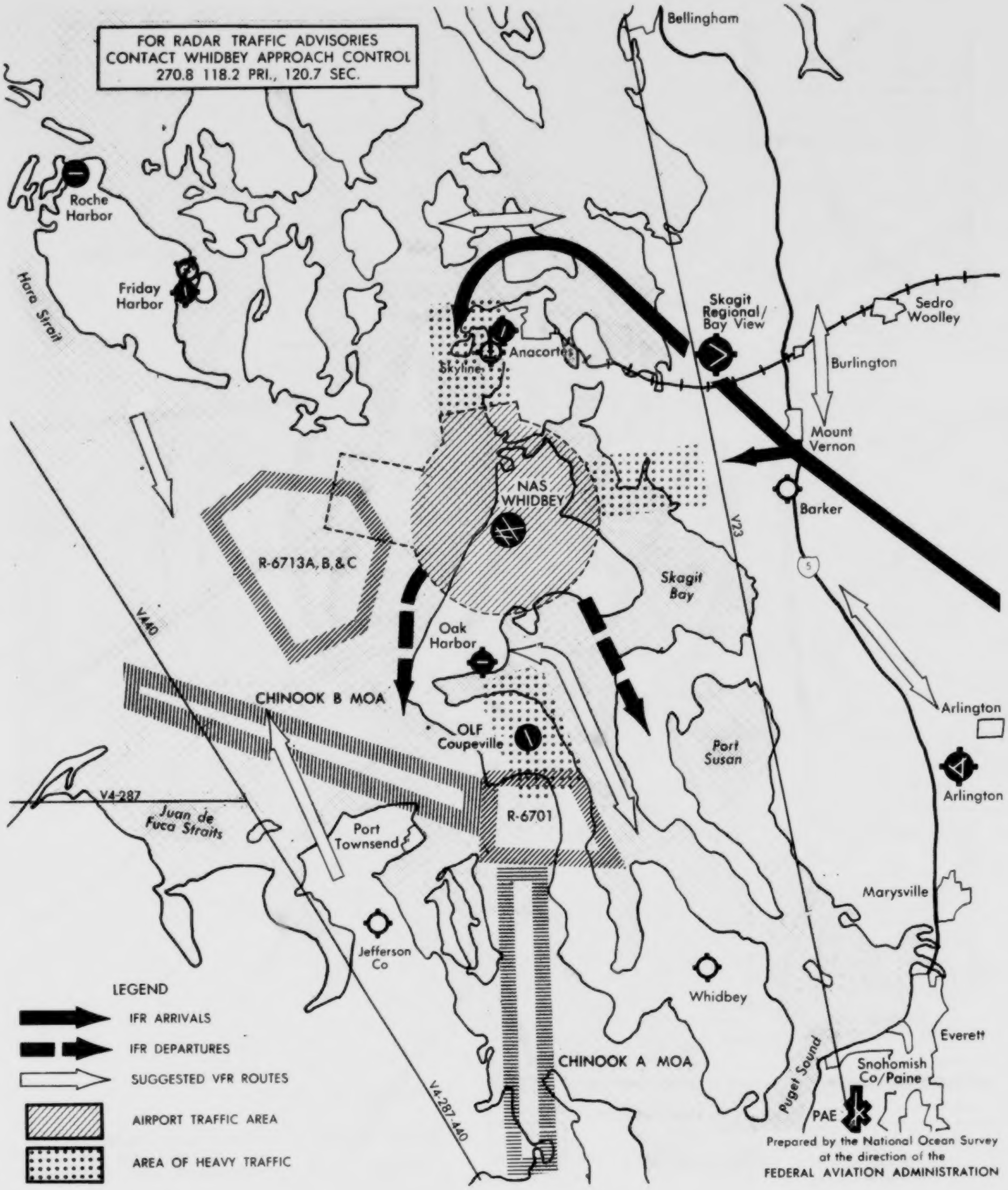
Edwards AFB
Rogers Lake
MOJAVE DESERT
R-2515
COMPLEX 1C MOA
Barstow-Daggett
Barstow
Mojave River
Helendale (Pvt.)
Sunhill Ranch
El Mirage Lake
El Mirage
GEORGE AFB
Apple Valley
Victorville
Lucerne Lake
Rabbit Lake
Hesperia Air Lodge
Lake Arrowhead
Cedar Springs Reservoir
Crestline
Cajon
To PMD
V12
V210
V8N
V8N-210
V442
V137
V8-21 283
15
18
138
395
DESCENDING FROM 12,000' MSL
DESCENDING TO 4500' MSL
DESCENDING TO 4500' MSL
DESCENDING FROM 9000' MSL TO 4500' MSL
4500'
CLIMBING TO 5500' MSL
CLIMBING TO 11,000' MSL OR ABOVE
CLIMBING TO 11000' MSL OR ABOVE
CLIMBING TO 11000' MSL
CLIMBING TO 7500' MSL
CAUTION, THIS ROUTE NORMALLY CONTAINS TWO OR MORE AIRCRAFT
VFR OVERFLIGHT 6500' MSL MINIMUM
VFR OVERFLIGHT 7500' MSL MINIMUM
RECOMMENDED ALTITUDE TO FOLLOW HWY 395 TO NORTH OF GEORGE IS AT OR ABOVE 7500
SUGGESTED ALTITUDE SOUTHEAST OF GEORGE AFB IS AT OR ABOVE 1500' AGL FOR IFR TRAINING ROUTE AVOIDANCE
LEGEND
EXTENSIVE JET FIGHTER TRAFFIC SURFACE TO 6000' MSL
SUGGESTED VFR ROUTES
MAJOR JET ARRIVALS
MAJOR JET DEPARTURES
LOW ALTITUDE TRAINING ROUTES SURFACT TO 1500' AGL

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WHIDBEY ISLAND, NAS WASHINGTON

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING NAS WHIDBEY FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, ARE ENCOURAGED TO CONTACT WHIDBEY APPROACH CONTROL FOR TRAFFIC ADVISORIES.


FOR RADAR TRAFFIC ADVISORIES
CONTACT WHIDBEY APPROACH CONTROL
270.8 118.2 PRI., 120.7 SEC.
Bellingham
Roche Harbor
Friday Harbor
Haro Strait
Skagit Regional/ Bay View
Sedro Woolley
Burlington
Skyline
Anacortes
Mount Vernon
Barker
NAS WHIDBEY
V23
5
R-6713A, B, & C
Skagit Bay
V440
Oak Harbor
CHINOOK B MOA
Arlington
OLF Coupeville
Port Susan
Arlington
V4-287
Juan de Fuca Straits
R-6701
Port Townsend
Marysville
Jefferson Co
Whidbey
LEGEND
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC
Everett
CHINOOK A MOA
Puget Sound
Snohomish Co/Paine
PAE
V4-287-440

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22 FEB 1979

TERMINAL AREA GRAPHIC NOTICE

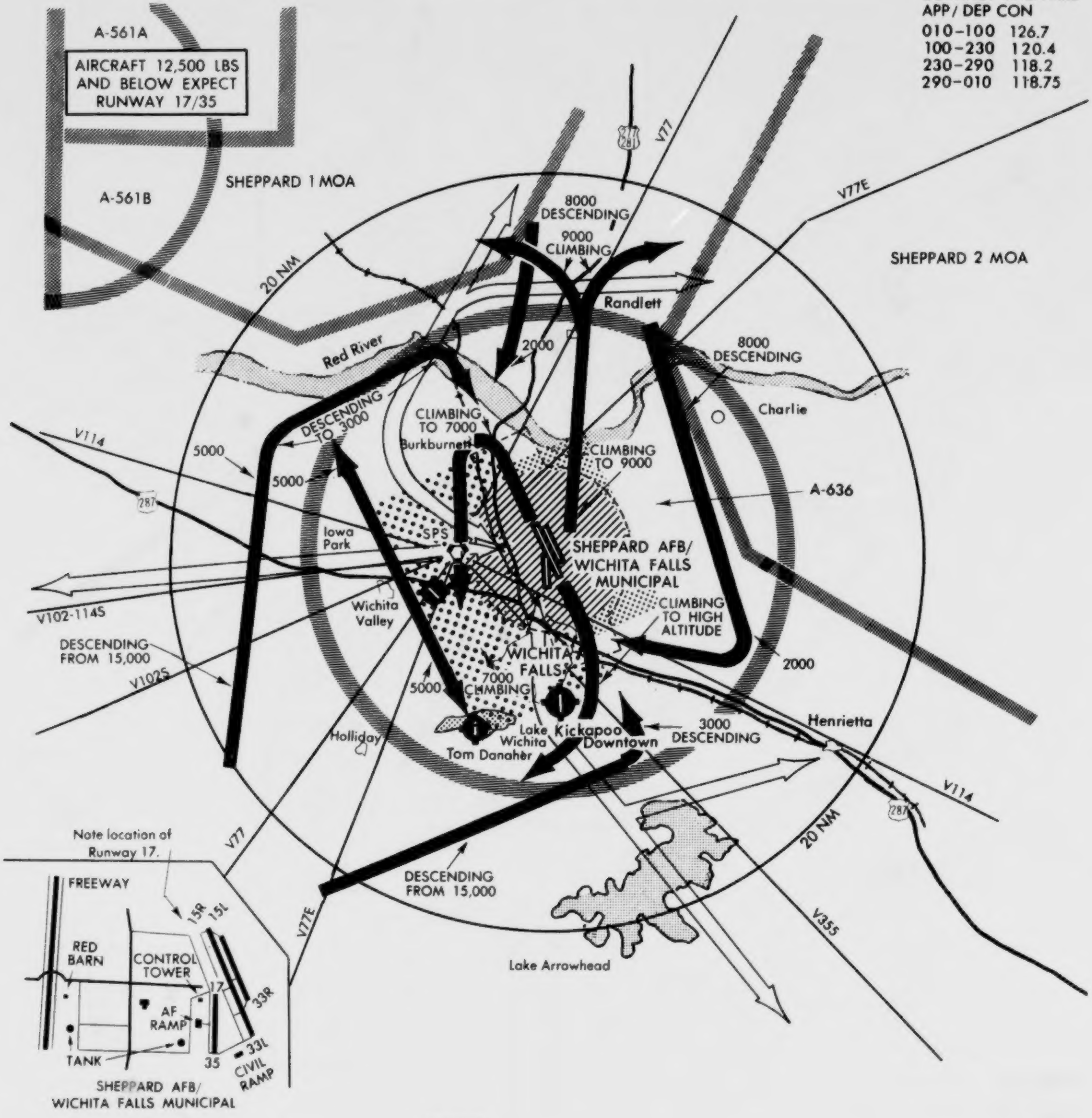
(NOT TO BE USED FOR NAVIGATION)

WICHITA FALLS, TEXAS

THERE IS A HIGH VOLUME OF STUDENT JET OPERATIONS IN THE TERMINAL AREA. THE DARK ARROWS INDICATE JET IFR ARRIVAL AND DEPARTURE ROUTES THAT ARE MOST COMMONLY USED. RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTINGS ARE SHOWN BY THE LIGHT ARROWS. RECOMMEND VFR TRAFFIC STAY AT OR BELOW 2300 MSL IN VICINITY OF SHADED AREAS.

CONTACT SHEPPARD APP/ DEP CON

010–100	126.7
100–230	120.4
230–290	118.2
290–010	118.75


A-561A
AIRCRAFT 12,500 LBS AND BELOW EXPECT RUNWAY 17/35
A-561B
SHEPPARD 1 MOA
SHEPPARD 2 MOA
281
V77
V77E
8000 DESCENDING
9000 CLIMBING
Randlett
20 NM
2000
Red River
8000 DESCENDING
Charlie
DESCENDING TO 3000
CLIMBING TO 7000
Burkburnett
CLIMBING TO 9000
V114
287
5000
5000
A-636
Iowa Park
SPS
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL
V102-114S
Wichita Valley
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 15,000
V102S
WICHITA FALLS
2000
5000
7000 CLIMBING
Holliday
Lake Wichita
Kickapoo Downtown
Tom Danaher
3000 DESCENDING
Henrietta
V114
287
20 NM
Note location of Runway 17.
V77
DESCENDING FROM 15,000
V77E
V355
Lake Arrowhead
FREEWAY
15R
15L
RED BARN
CONTROL TOWER
17
33R
AF RAMP
TANK
35
33L
CIVIL RAMP
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL

LEGEND

➡	IFR ARRIVAL/DEPARTURE ROUTES	▒	T-37 TRAFFIC SURFACE TO 3000
⇨	VFR ARRIVAL/DEPARTURE ROUTES	░	T-38 TRAFFIC AT 2800
▨	AIRPORT TRAFFIC AREA		ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

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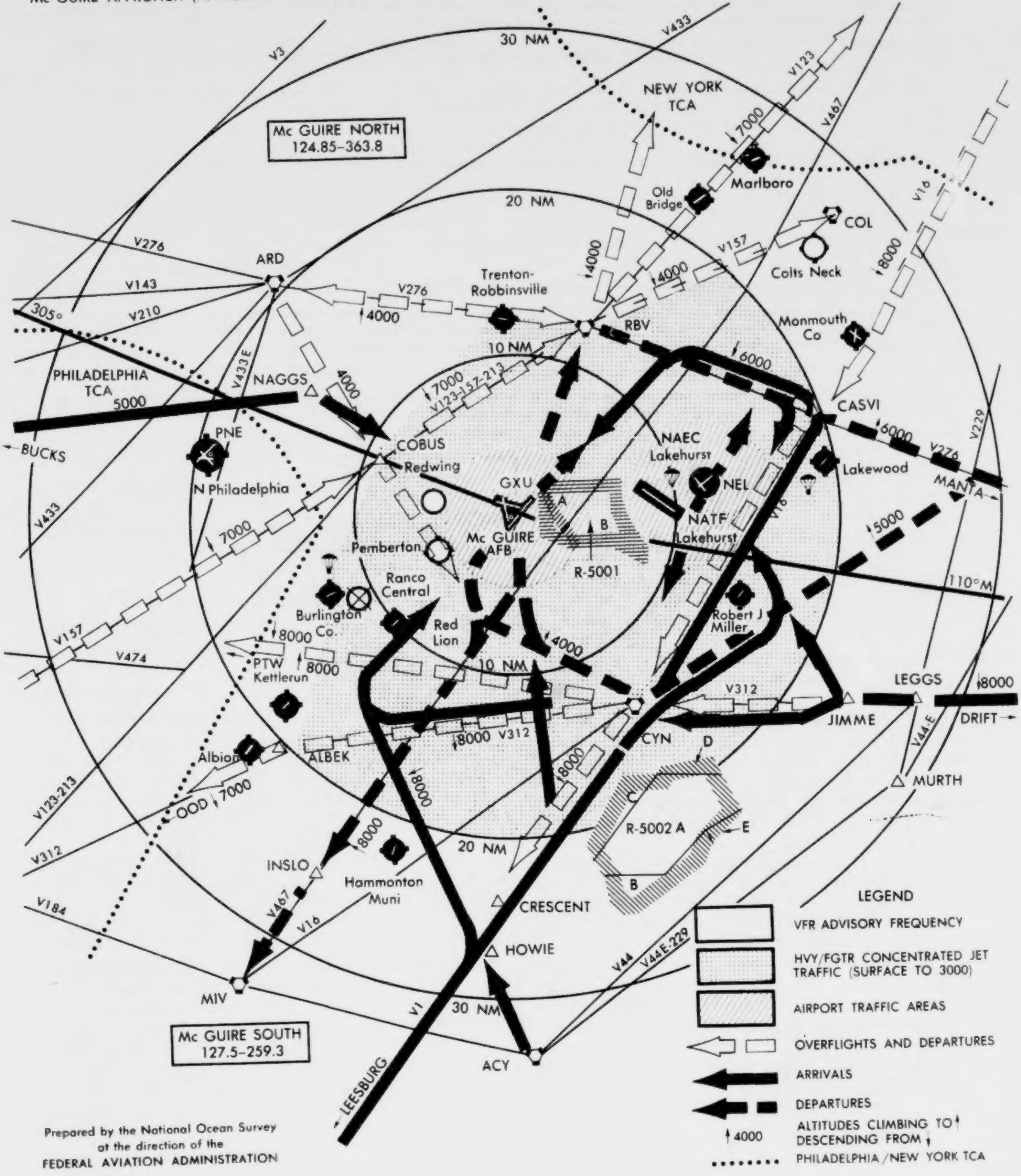
FEDERAL AVIATION ADMINISTRATION

1 MAR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WRIGHTSTOWN, Mc GUIRE AFB, NJ

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE Mc GUIRE RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT Mc GUIRE APPROACH (APPROPRIATE SECTOR) FOR TRAFFIC ADVISORIES.


30 NM
20 NM
10 NM
V3
V433
V123
V467
V16
V276
V143
V210
V433E
V157
V474
V123-213
V312
V184
V1
V44
V44E-229
V44-E
V229
V123-157-213
NEW YORK TCA
PHILADELPHIA TCA
Mc GUIRE NORTH 124.85–363.8
Mc GUIRE SOUTH 127.5–259.3
ARD
305°
BUCKS
NAGGS
5000
4000
7000
8000
6000
PNE
N Philadelphia
COBUS
Redwing
Trenton-Robbinsville
RBV
Old Bridge
Marlboro
COL
Colts Neck
Monmouth Co
CASVI
MANTA
Lakewood
NAEC Lakehurst
NEL
NATF Lakehurst
GXU
Mc GUIRE AFB
A
B
R-5001
110°M
Pemberton
Ranco Central
Burlington Co.
Red Lion
PTW
Kettlerun
Robert J Miller
LEGGS
DRIFT
JIMME
CYN
D
C
R-5002 A
E
MURTH
ALBEK
Albion
OOD
INSLO
Hammonton Muni
CRESCENT
HOWIE
MIV
ACY
LEESBURG
LEGEND
VFR ADVISORY FREQUENCY
HVY/FGTR CONCENTRATED JET TRAFFIC (SURFACE TO 3000)
AIRPORT TRAFFIC AREAS
OVERFLIGHTS AND DEPARTURES
ARRIVALS
DEPARTURES
4000 ALTITUDES CLIMBING TO ↑ DESCENDING FROM ↓
PHILADELPHIA/NEW YORK TCA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON NATIONAL AIRPORT NOISE ABATEMENT PROCEDURES

DEPARTURES

JET AIRCRAFT – From take-off climb to 1500'. At 1500' reduce power to a target setting computed for hot day conditions at maximum gross take-off weight to give approximately 500' FPM climb. (In lieu of 1500' as the point of power reduction, the 2 mile DME fix* when departing northwest or northeast or the 3 mile DME fix* when departing south may be used). Maintain reduced power until past a 10 mile DME arc*. Upon reaching the 10 mile DME arc*, gradually increase power to normal climb settings. Follow the Potomac or Anacostia River routes described below unless otherwise advised by ATC.

ATC CLEARANCE TO "CONTINUE CLIMB" IN NO WAY ELIMINATES THE REQUIREMENT TO COMPLY WITH NOISE ABATEMENT PROCEDURES, EXCEPT THAT THE SPECIFIC ATC INSTRUCTION TO "EXPEDITE CLIMB" RELEASES THE PILOT FROM FURTHER COMPLIANCE WITH NOISE ABATEMENT PROCEDURES.

NORTHWEST – Potomac River to abeam Georgetown Reservoir thence continue over the river or via 326° Radial* until past the 10 mile DME arc.*

NORTHEAST – Anacostia River to the 5 mile DME fix*, continuing at reduced power past a 10 mile DME arc*.

SOUTH – Potomac River to the 5 mile DME fix*, continuing at reduced power past a 10 Mile DME arc*.

(*Washington (DCA) VOR/DME)

1-AND 2-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 2000' prior to turning on course unless instructed to turn sooner by ATC.

ARRIVALS

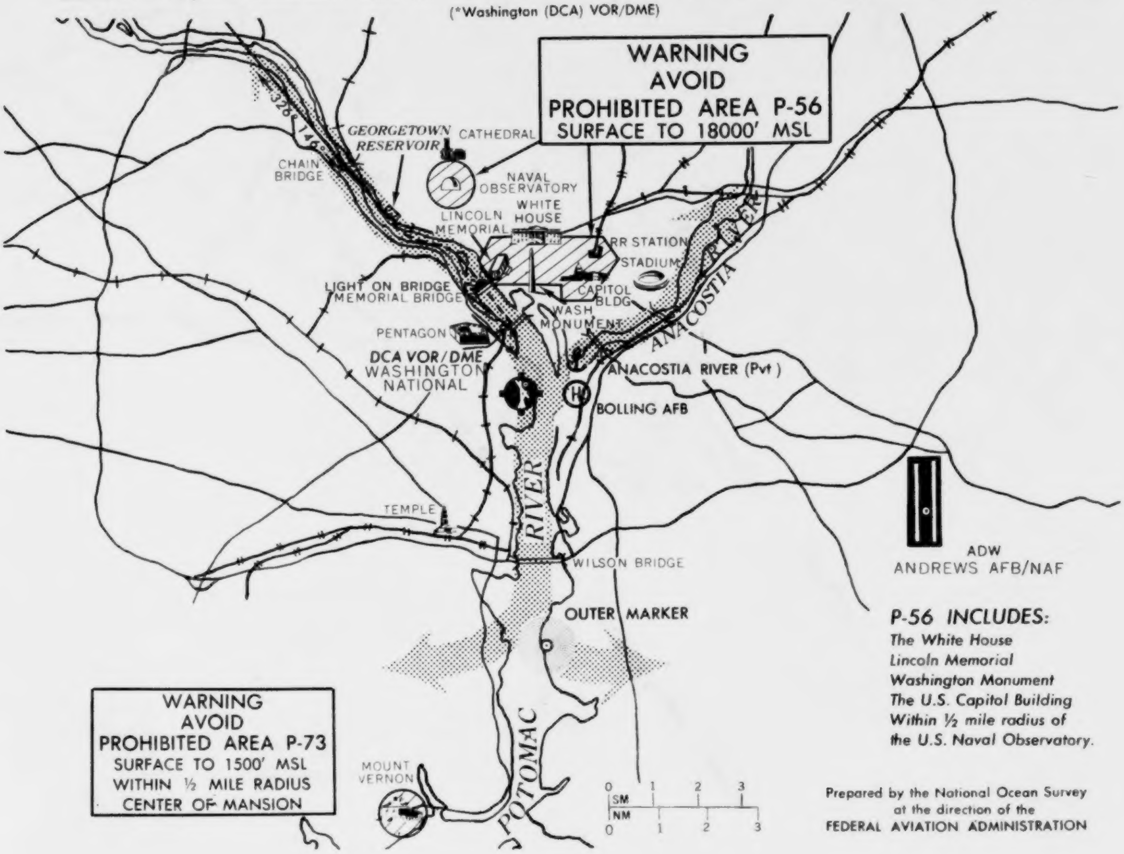
Aircraft shall be vectored so as to continue their approaches over the rivers while being spaced within the traffic flow.

Aircraft making IFR approaches from the northwest shall be cleared for a River Approach (Visual) when weather is 3500' and 3 miles or better. When so cleared, aircraft will visually follow the river to the airport or will proceed via final approach course of the I-ASO, LDA/VGS (146° inbound) or 326° radial* (146° inbound) to abeam Georgetown Reservoir or 4 mile DME fix*, then will visually follow the river to the airport.

A light on Memorial Bridge is installed to assist pilots in staying over the Potomac River during approaches from the northwest.

Aircraft making IFR approaches from the south shall be cleared for a Mount Vernon Approach (Visual) when weather is 3000' and 4 miles or better. When so cleared, aircraft will proceed inbound via 187° radial* (007° inbound) to abeam Oxon NDB or 5.6 DME fix*, then will visually follow the river to the airport.

(*Washington (DCA) VOR/DME)


WARNING
AVOID
PROHIBITED AREA P-56
SURFACE TO 18000' MSL
326°
146°
GEORGETOWN RESERVOIR
CATHEDRAL
CHAIN BRIDGE
NAVAL OBSERVATORY
WHITE HOUSE
LINCOLN MEMORIAL
RR STATION
STADIUM
LIGHT ON BRIDGE
MEMORIAL BRIDGE
CAPITOL BLDG
WASH MONUMENT
PENTAGON
DCA VOR/DME
WASHINGTON NATIONAL
ANACOSTIA RIVER
ANACOSTIA RIVER (Pvt)
BOLLING AFB
RIVER
TEMPLE
WILSON BRIDGE
ADW
ANDREWS AFB/NAF
OUTER MARKER
POTOMAC
WARNING
AVOID
PROHIBITED AREA P-73
SURFACE TO 1500' MSL
WITHIN ½ MILE RADIUS
CENTER OF MANSION
MOUNT VERNON
0 1 2 3
SM
NM
0 1 2 3

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol Building
Within ½ mile radius of the U.S. Naval Observatory.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREAS
(TRSA)

SERVICES PROVIDED

1. Services within a TRSA are provided on a voluntary pilot participation basis. ATC assumes that VFR aircraft entering or departing the TRSA want the service unless the pilot advises otherwise. If VFR pilots do not want the service, they should inform ground control or approach control, as appropriate, on initial contact by stating 'NEGATIVE STAGE III,' or by making a similar comment.

2. Radar vectoring and sequencing is provided on a full-time basis for all IFR and participating VFR aircraft landing at the primary airport, and at other airports if specifically advertised.

3. Separation between all participating VFR aircraft and all IFR aircraft operating within the TRSA is provided.

4. Radar advisories on all unidentified aircraft are provided on a workload permitting basis.

5. Service provided in a TRSA is also called Stage III Service and a more detailed explanation of the program is provided in the Airman's Information Manual, Part 1.

FLIGHT PROCEDURES

1. IFR Flights—Aircraft operating within the TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights

a. Airports within the TRSA:

(1) Arriving aircraft landing at airports within the TRSA are expected to contact Approach Control on specified frequencies in relation to geographical fixes depicted on the TRSA charts on the following pages. Initial contact should be made outside of the TRSA.

(2) Departing aircraft should inform ATC of their intended destination and/or route of flight and proposed cruising altitude. Departing aircraft will be advised by the tower when to contact departure control and given a frequency to be used.

b. Airports underlying the TRSA—Unless the flight will be conducted below the floor of the TRSA, arriving aircraft are expected to contact Approach Control on specified frequencies in relation to geographical fixes listed on the individual TRSA charts. Initial contact should be made outside of the TRSA.

c. Transiting aircraft—Aircraft desiring to transit the TRSA are expected to contact Departure/Approach Control on specified frequencies and in relation to geographical fixes listed on the individual TRSA charts.

ATC PROCEDURES

1. While operating within a TRSA, pilots are provided Stage III service and separation. In the event of a radar outage, separation and sequencing of VFR aircraft will be suspended as this service is depedent on radar. The pilot will be advised that the service is not available and issued wind, runway information, and the time or place to contact the tower. Traffic information will be provided on a workload-permitting basis.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio).

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

> Note: Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

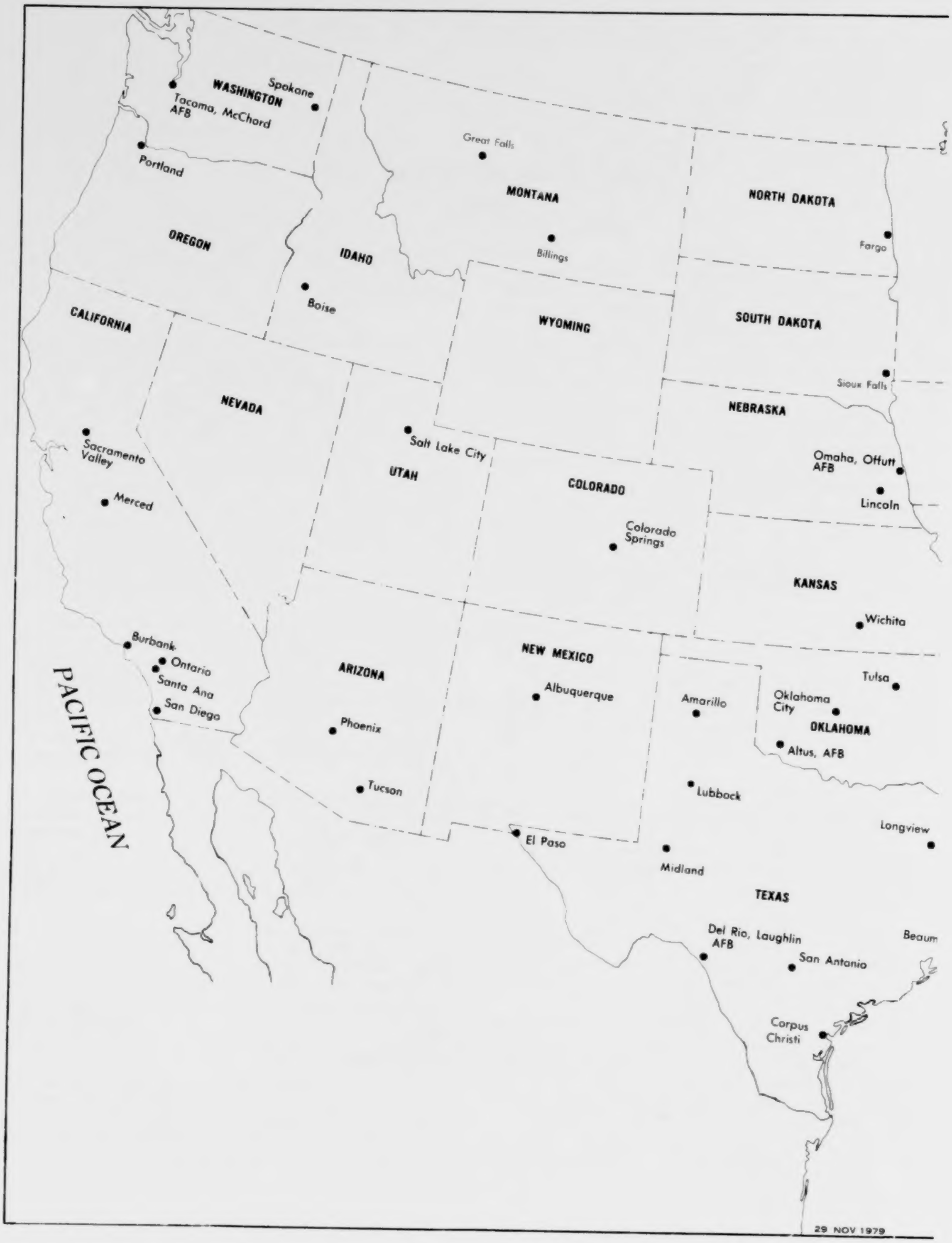
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

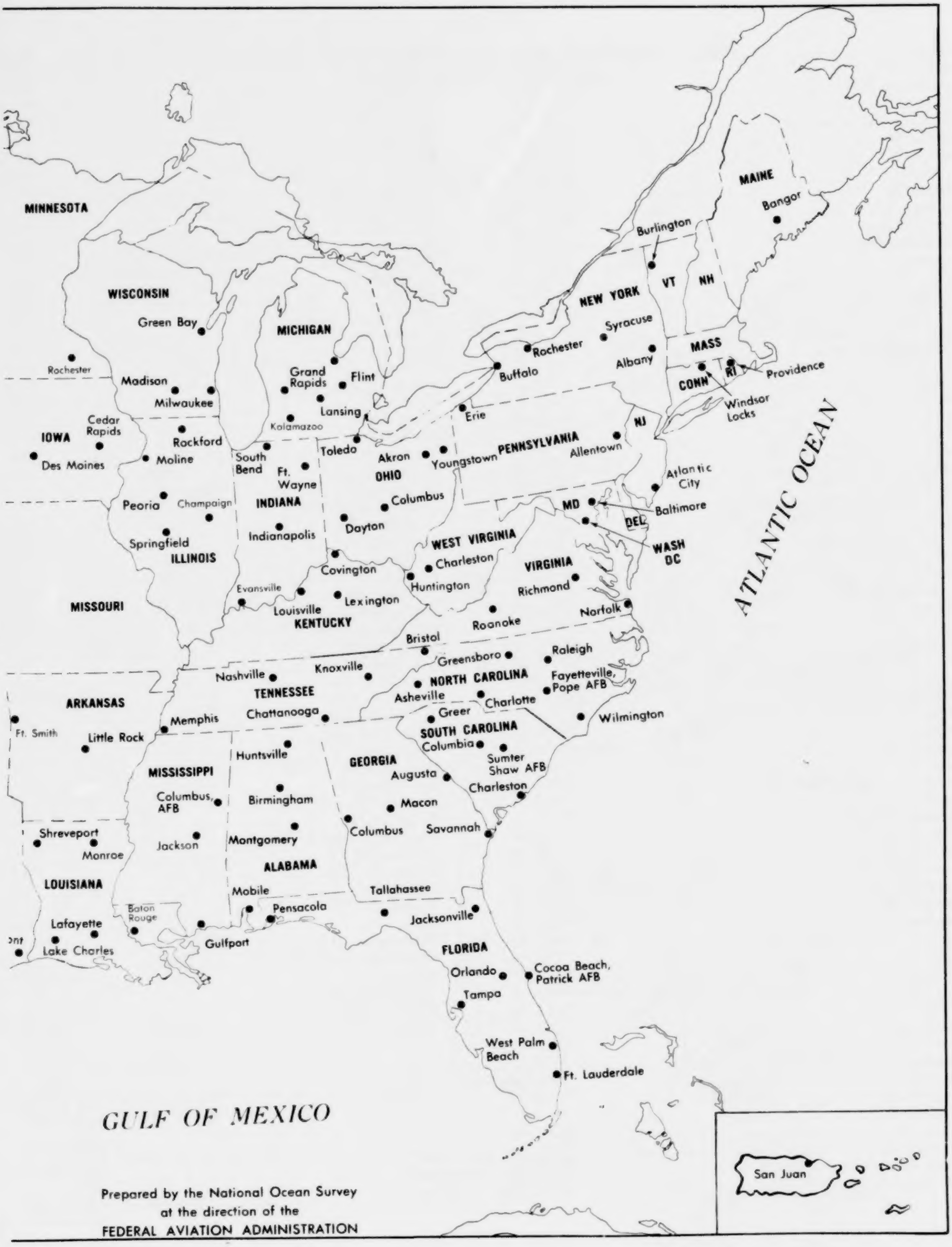
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

INDEX OF TERMINAL RADAR SERVICE AREAS


WASHINGTON
Spokane
Tacoma, McChord AFB
Portland
OREGON
IDAHO
Boise
MONTANA
Great Falls
Billings
NORTH DAKOTA
Fargo
SOUTH DAKOTA
Sioux Falls
WYOMING
CALIFORNIA
NEVADA
UTAH
Salt Lake City
Sacramento Valley
Merced
NEBRASKA
Omaha, Offutt AFB
Lincoln
COLORADO
Colorado Springs
KANSAS
Wichita
Burbank
Ontario
Santa Ana
San Diego
PACIFIC OCEAN
ARIZONA
Phoenix
Tucson
NEW MEXICO
Albuquerque
El Paso
Amarillo
Oklahoma City
OKLAHOMA
Tulsa
Altus, AFB
Lubbock
Midland
Longview
TEXAS
Del Rio, Laughlin AFB
San Antonio
Beaum
Corpus Christi

29 NOV 1979

INDEX OF TERMINAL RADAR SERVICE AREAS


MINNESOTA
WISCONSIN
Green Bay
Rochester
Madison
Milwaukee
MICHIGAN
Grand Rapids
Flint
Lansing
Kalamazoo
IOWA
Cedar Rapids
Des Moines
Rockford
Moline
Peoria
Champaign
Springfield
ILLINOIS
South Bend
Ft. Wayne
INDIANA
Indianapolis
Toledo
Akron
Youngstown
OHIO
Columbus
Dayton
Erie
PENNSYLVANIA
Allentown
NEW YORK
Rochester
Syracuse
Buffalo
Albany
Burlington
VT
NH
MAINE
Bangor
MASS
CONN
RI
Providence
Windsor Locks
NJ
Atlantic City
MD
Baltimore
DEL
WASH DC
ATLANTIC OCEAN
WEST VIRGINIA
Charleston
Huntington
VIRGINIA
Richmond
Norfolk
Roanoke
Covington
Evansville
Louisville
Lexington
KENTUCKY
MISSOURI
Bristol
Greensboro
Raleigh
Knoxville
Nashville
TENNESSEE
Chattanooga
Memphis
NORTH CAROLINA
Asheville
Charlotte
Fayetteville, Pope AFB
Wilmington
Greer
SOUTH CAROLINA
Columbia
Sumter Shaw AFB
Charleston
ARKANSAS
Ft. Smith
Little Rock
MISSISSIPPI
Columbus, AFB
Jackson
Huntsville
Birmingham
Montgomery
ALABAMA
GEORGIA
Augusta
Macon
Columbus
Savannah
Shreveport
Monroe
LOUISIANA
Lafayette
Lake Charles
ont
Baton Rouge
Gulfport
Mobile
Pensacola
Tallahassee
Jacksonville
FLORIDA
Orlando
Cocoa Beach, Patrick AFB
Tampa
West Palm Beach
Ft. Lauderdale
GULF OF MEXICO
San Juan

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

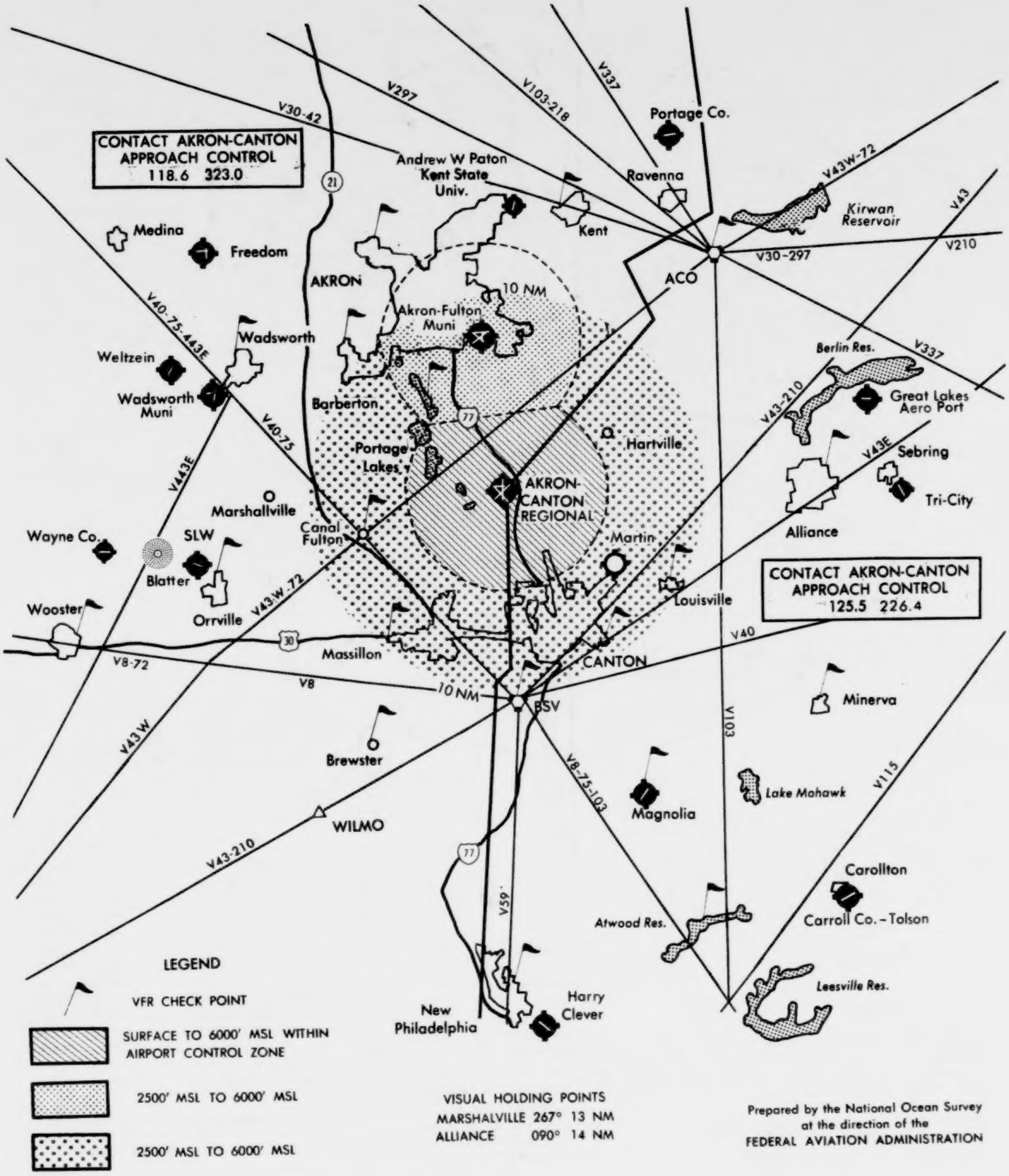
NEW GRAPHIC ★
MAJOR REVISION †

TABLE OF CONTENTS

Akron, Oh.	TRSA-5
Albany, N.Y.	†TRSA-6
Albuquerque, N.M.	TRSA-7
Allentown, Pa.	TRSA-8
Altus, AFB, Ok.	TRSA-9
Amarillo, Tx.	TRSA-10
Asheville, N.C.	TRSA-11
Atlantic City, N. J.	TRSA-12
Augusta, Ga.	TRSA-13
Baltimore, Md.	TRSA-14
Bangor, Me.	TRSA-15
Baton Rouge, La.	★TRSA-16
Beaumont, Tx.	TRSA-17
Billings, Mt.	★TRSA-18
Birmingham, Al.	TRSA-19
Boise, Id.	TRSA-20
Bristol, Tn.	TRSA-21
Buffalo, N.Y.	TRSA-22
Burbank, Ca.	TRSA-23
Burlington, Vt.	TRSA-24
Cedar Rapids, Ia.	TRSA-25
Champaign, Il.	★TRSA-26
Charleston, S.C.	TRSA-27
Charleston, W.V.	TRSA-28
Charlotte, N.C.	TRSA-29
Chattanooga, Tn.	TRSA-30
Cincinnatti, Ohio (See Covington, Ky.)	
Cocoa Beach, Patrick AFB, Fl.	TRSA-31
Colorado Springs, Co.	TRSA-32
Columbia, S.C.	†TRSA-33
Columbus, Ga.	TRSA-34
Columbus AFB, Ms.	TRSA-35
Columbus, Oh.	TRSA-36
Corpus Christi, Tx.	TRSA-37
Covington, Ky.	TRSA-38
Dayton, Oh.	†TRSA-39
Del Rio, Laughlin AFB, Tx.	TRSA-40
Des Moines, Ia.	†TRSA-41
El Paso, Tx.	TRSA-42
Erie, Pa.	TRSA-43
Evansville, In.	★TRSA-44
Fargo, N.D.	★TRSA-45
Fayetteville, Pope AFB, N.C.	TRSA-46
Flint, Mi.	TRSA-47
Ft. Lauderdale, Fl.	TRSA-48
Ft. Smith, Ar.	★TRSA-49
Ft. Wayne, In.	TRSA-50
Grand Rapids, Mi.	TRSA-51
Great Falls, Mt.	★TRSA-52
Green Bay, Wi.	TRSA-53
Greensboro, N.C.	TRSA-54
Greer, S.C.	TRSA-55
Gulfport, Ms.	TRSA-56
Huntington, W.V.	TRSA-57
Huntsville, Al.	TRSA-58
Indianapolis, In.	TRSA-59
Jackson, Ms.	TRSA-60
Jacksonville, Fl.	TRSA-61
Kalamazoo, Mi.	★TRSA-62
Knoxville, Tn.	TRSA-63
Lafayette, La.	TRSA-64
Lake Charles, La	TRSA-65
Lansing, Mi.	TRSA-66
Lexington, Ky.	TRSA-67
Lincoln, Nb.	TRSA-68
Little Rock, Ar.	TRSA-69
Longview, Tx.	TRSA-70
Louisville, Ky.	TRSA-71
Lubbock, Tx.	TRSA-72
Macon, Ga.	†TRSA-73
Madison, Wi.	TRSA-74
Memphis, Tn.	TRSA-75
Merced, Ca.	TRSA-76
Midland, Tx.	TRSA-77
Milwaukee, Wi.	TRSA-78
Mobile, Al.	TRSA-79
Moline, Il.	TRSA-80
Monroe, La.	TRSA-81
Montgomery, Al.	TRSA-82
Nashville, Tn.	TRSA-83
Norfolk, Va.	TRSA-84
Oklahoma City, Ok.	TRSA-85
Omaha, Offutt AFB, Nb.	†TRSA-86
Ontario, Ca.	TRSA-87
Orlando, Fl.	TRSA-88
Pensacola, Fl.	TRSA-89
Peoria, Il.	TRSA-90
Phoenix, Az.	TRSA-91
Portland, Or.	TRSA-92
Providence, R.I.	TRSA-93
Raleigh, N.C.	TRSA-94
Richmond, Va.	†TRSA-95
Roanoke, Va.	TRSA-96
Rochester, Mn.	TRSA-97
Rochester, N.Y.	TRSA-98
Rockford, Il.	TRSA-99
Sacramento Valley, Ca.	TRSA-100
Saginaw, Mi.	TRSA-10
Salt Lake City, Ut.	TRSA-1
San Antonio, Tx.	TRSA-1
San Diego, Ca.	TRSA-104
San Juan, P.R.	TRSA-105
Santa Ana, Ca.	TRSA-106
Savannah, Ga.	†TRSA-107
Shreveport, La.	TRSA-108
Sioux Falls, S.D.	★TRSA-109
South Bend, In.	TRSA-110
Spokane, Wa.	TRSA-111
Springfield, Il.	TRSA-112
Sumter, Shaw AFB, S.C.	TRSA-113
Syracuse, N.Y.	TRSA-114
Tacoma, McChord AFB, Wa.	TRSA-115
Tallahassee, Fl.	TRSA-116
Tampa, Fl.	TRSA-117
Toledo, Oh.	TRSA-118
Tucson, Az.	TRSA-119
Tulsa, Ok.	TRSA-120
Washington, D.C.	†TRSA-121
West Palm Beach, Fl.	TRSA-122
Wichita, Ks.	TRSA-123
Wilmington, N.C.	TRSA-124
Windsor Locks, Ct.	TRSA-125
Youngstown, Oh.	TRSA-126

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AKRON, OHIO, AKRON-CANTON REGIONAL ARPT.
FIELD ELEV. 1228′ MSL


CONTACT AKRON-CANTON APPROACH CONTROL 118.6 323.0
CONTACT AKRON-CANTON APPROACH CONTROL 125.5 226.4
V30-42
V297
V103-218
V337
Portage Co.
Andrew W Paton
Kent State Univ.
Ravenna
Kent
V43W-72
Kirwan Reservoir
V43
V210
V30-297
ACO
21
Medina
Freedom
AKRON
10 NM
Akron-Fulton Muni
V40-75-443E
Wadsworth
Weltzein
Wadsworth Muni
Barberton
77
Portage Lakes
Hartville
AKRON-CANTON REGIONAL
V40-75
V443E
Marshallville
Canal Fulton
Wayne Co.
SLW
Blatter
Orrville
Martin
Louisville
Wooster
V43W-72
30
Massillon
V8-72
V8
10 NM
CANTON
V40
BSV
Berlin Res.
V337
Great Lakes Aero Port
V43-210
Sebring
V43E
Tri-City
Alliance
Minerva
V103
V43W
Brewster
V8-75-103
Magnolia
Lake Mohawk
V115
WILMO
V43-210
77
V59
Carollton
Carroll Co.-Tolson
Atwood Res.
Leesville Res.
Harry Clever
New Philadelphia
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
2500′ MSL TO 6000′ MSL
2500′ MSL TO 6000′ MSL

VISUAL HOLDING POINTS
MARSHALVILLE 267° 13 NM
ALLIANCE 090° 14 NM

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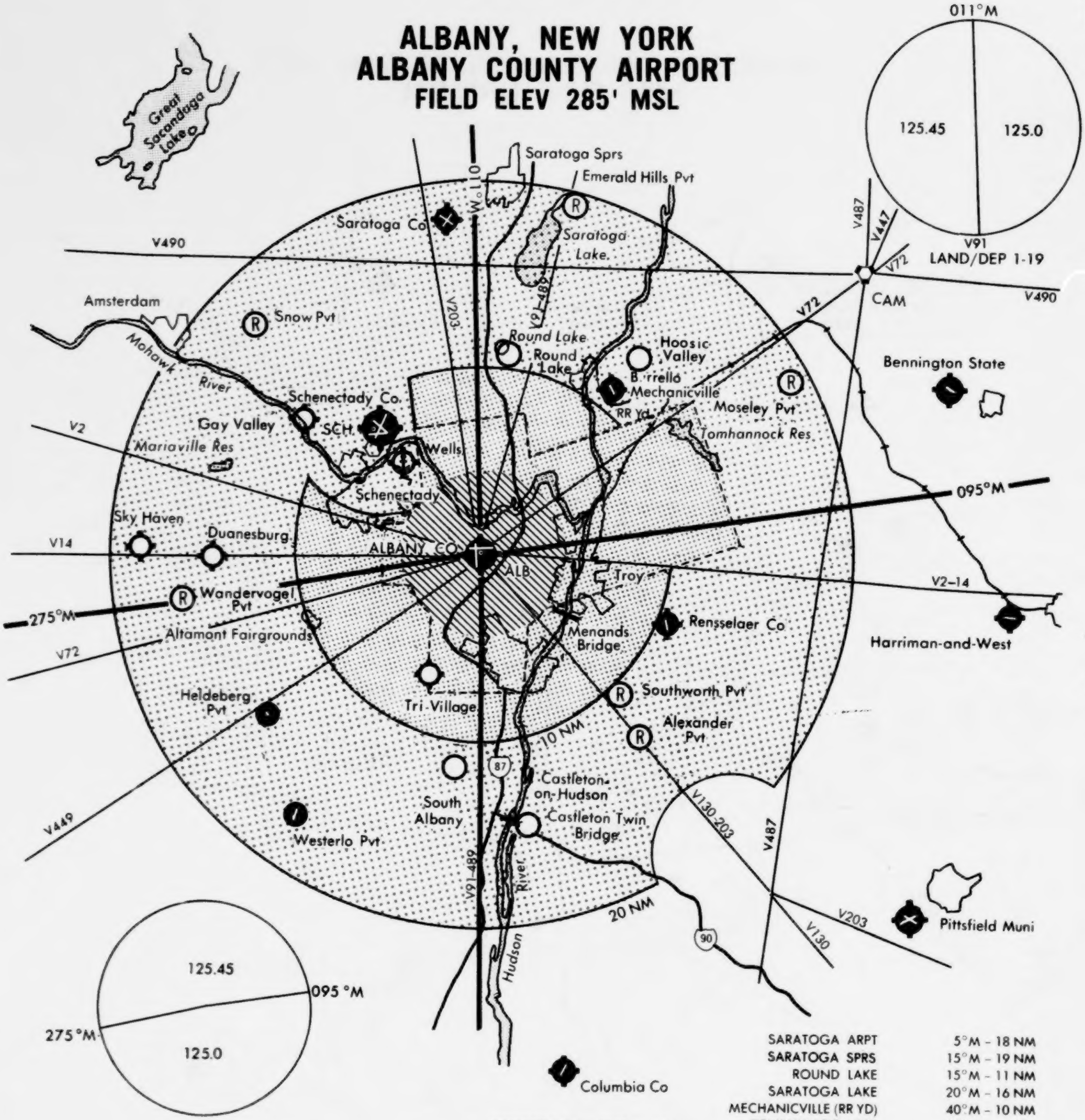
19 APR 1979
]

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALBANY, NEW YORK
ALBANY COUNTY AIRPORT
FIELD ELEV 285' MSL


011°M
125.45
125.0
V91
LAND/DEP 1-19
Great Sacandaga Lake
Saratoga Sprs
Emerald Hills Pvt
Saratoga Co
Saratoga Lake
V490
V487
V447
V72
CAM
V490
Amsterdam
Snow Pvt
Mohawk River
V203
V91-489
Round Lake
Round Lake
Hoosic Valley
Burrello Mechanicville
RR Yd
Moseley Pvt
Tomhannock Res
Bennington State
Schenectady Co.
Gay Valley
SCH
Mariaville Res
Wells
V2
Schenectady
095°M
Sky Haven
Duanesburg
V14
ALBANY CO
ALB
Troy
V2-14
Wandervogel Pvt
275°M
Altamont Fairgrounds
Rensselaer Co
Harriman-and-West
V72
Menands Bridge
Tri-Village
Heldeberg Pvt
Southworth Pvt
10 NM
Alexander Pvt
87
Castleton-on-Hudson
South Albany
Castleton Twin Bridge
V130-203
V487
V449
Westerlo Pvt
V91-489
Hudson River
20 NM
V203
V130
90
Pittsfield Muni
125.45
095 °M
275 °M
125.0
Columbia Co
LAND/DEP 10-28

WESTERLO Pvt	230°M - 17 NM
ALTAMONT FAIR GROUNDS	265°M - 10 NM
DUANESBURG ARPT	285°M - 14 NM
MARIAVILLE RES	300°M - 15 NM
AMSTERDAM	320°M - 20 NM
SCHENECTADY CO	320°M - 8 NM
GREAT SACANDAGA RES	340°M - 30 NM

SARATOGA ARPT	5°M - 18 NM
SARATOGA SPRS	15°M - 19 NM
ROUND LAKE	15°M - 11 NM
SARATOGA LAKE	20°M - 16 NM
MECHANICVILLE (RR YD)	40°M - 10 NM
TOMHANNOCK RES	75°M - 12 NM
BENNINGTON STATE ARPT	82°M - 26 NM
TROY	110°M - 6 NM
NORTH ADAMS ARPT	110°M - 28 NM
RENSSELAER CO ARPT	125°M - 10 NM
MENANDS BRIDGE	140°M - 5 NM
PITTSFIELD ARPT	145°M - 29 NM
COLUMBIA CO ARPT	182°M - 27 NM
CASTLETON (TWIN BRIDGE)	185°M - 14 NM

LEGEND

▨	SURFACE TO 10,000' MSL
▒	2000' TO 10,000' MSL
░	5000' TO 10,000' MSL

NOTE: VFR AIRCRAFT VERIFY LANDING/DEPARTURE RUNWAY ON ATIS TO DETERMINE APPROACH/DEPARTURE CONTROL FREQUENCY. 120.45

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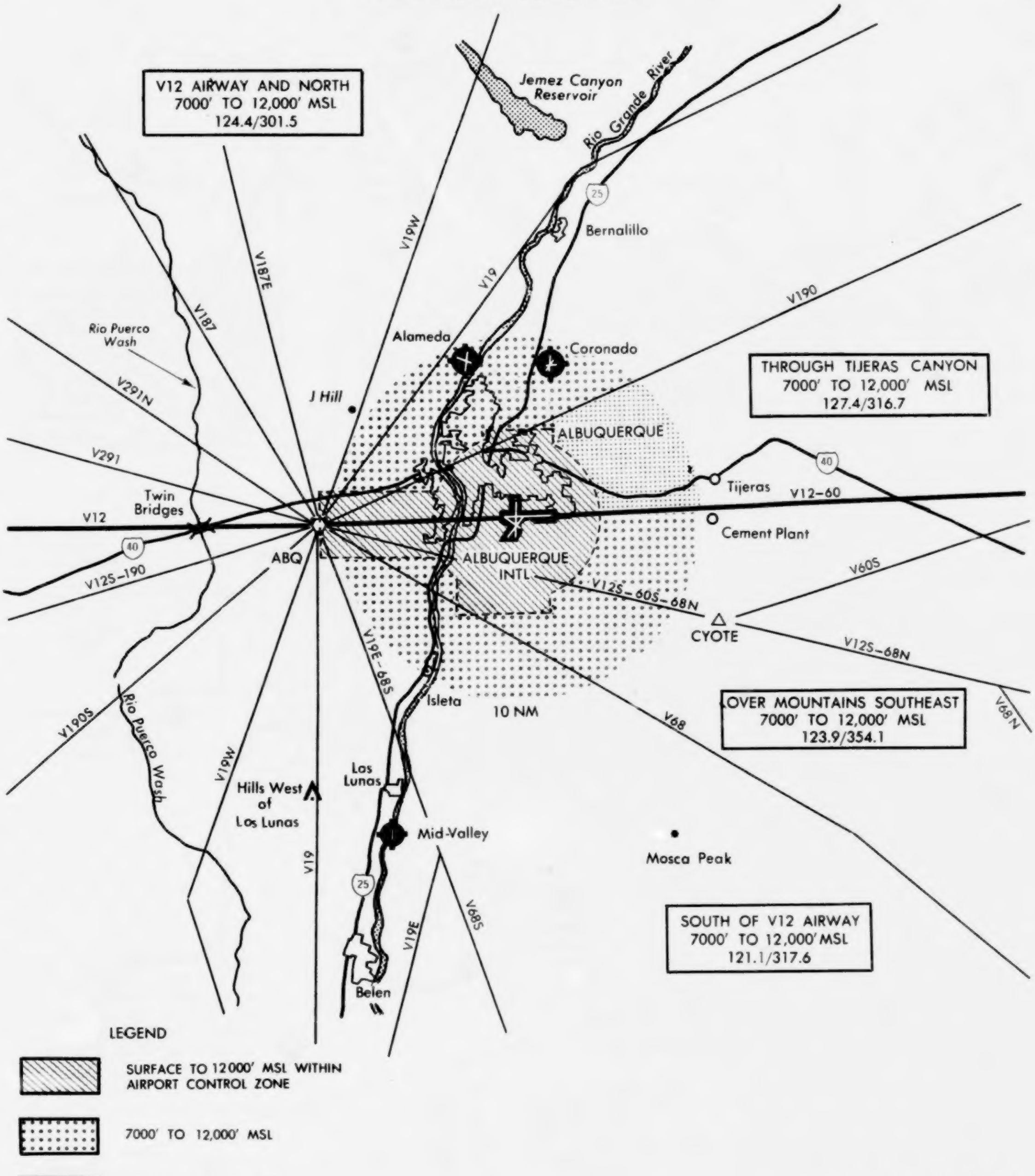
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALBUQUERQUE, NEW MEXICO
ALBUQUERQUE INTERNATIONAL AIRPORT
FIELD ELEV. 5352′ MSL


V12 AIRWAY AND NORTH
7000′ TO 12,000′ MSL
124.4/301.5
Jemez Canyon Reservoir
Rio Grande River
25
Bernalillo
V19W
V187E
V19
V187
V190
Rio Puerco Wash
V291N
Alameda
Coronado
J Hill
THROUGH TIJERAS CANYON
7000′ TO 12,000′ MSL
127.4/316.7
ALBUQUERQUE
V291
40
Tijeras
V12–60
Twin Bridges
V12
Cement Plant
40
ABQ
V12S–190
ALBUQUERQUE INTL
V60S
V12S–60S–68N
CYOTE
V12S–68N
V19E–68S
Isleta
10 NM
V68
OVER MOUNTAINS SOUTHEAST
7000′ TO 12,000′ MSL
123.9/354.1
V68N
V190S
Rio Puerco Wash
V19W
Hills West of Los Lunas
Los Lunas
Mid-Valley
Mosca Peak
V19
25
V68S
V19E
SOUTH OF V12 AIRWAY
7000′ TO 12,000′ MSL
121.1/317.6
Belen
LEGEND
▨ SURFACE TO 12000′ MSL WITHIN AIRPORT CONTROL ZONE
⁘ 7000′ TO 12,000′ MSL
░ 10,000′ TO 12,000′ MSL

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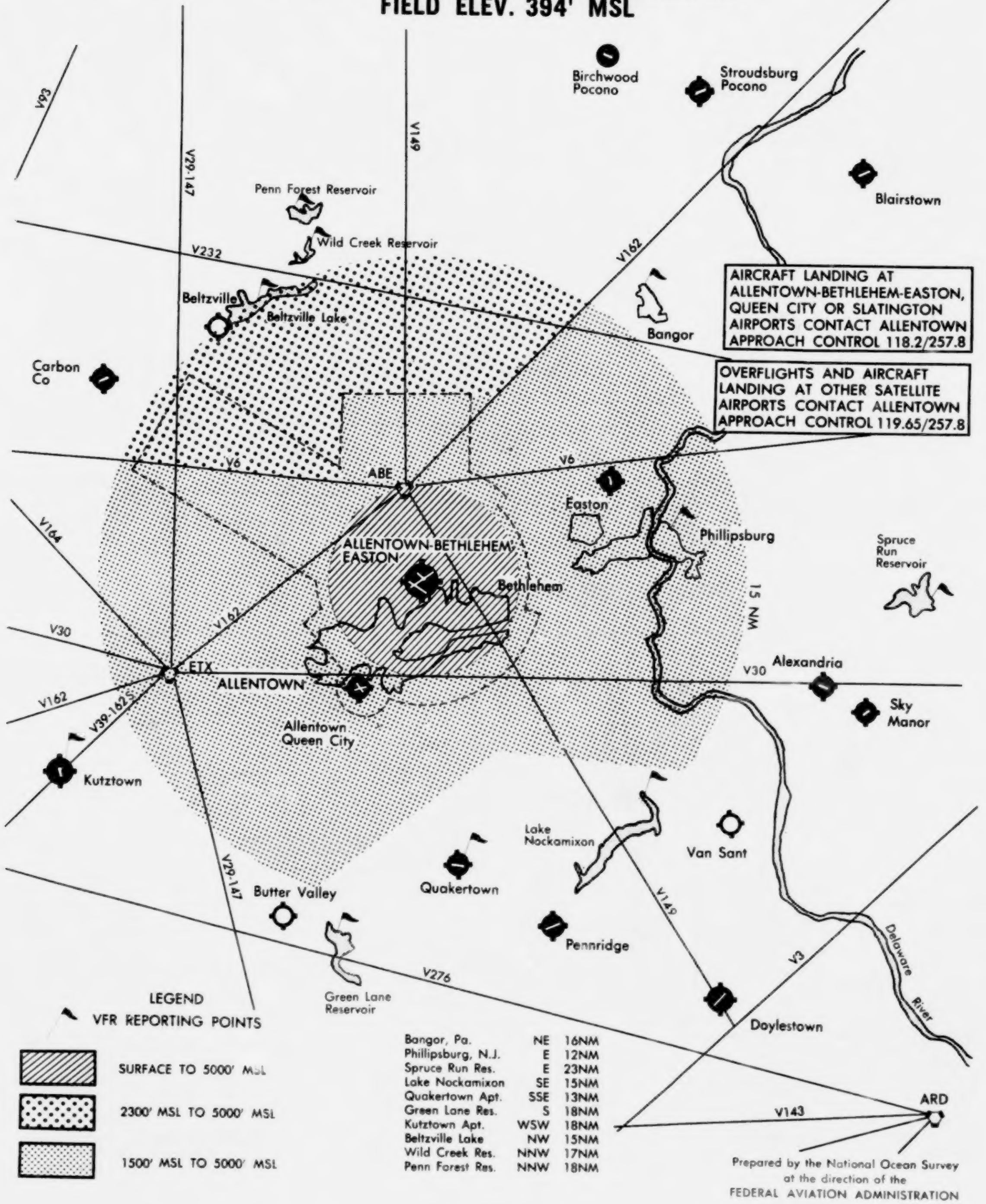
22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALLENTOWN, PENNSYLVANIA
ALLENTOWN-BETHLEHEM-EASTON AIRPORT
FIELD ELEV. 394' MSL


V93
V29-147
V149
Birchwood Pocono
Stroudsburg Pocono
Penn Forest Reservoir
Wild Creek Reservoir
Blairstown
V232
V162
Beltzville
Beltzville Lake
Bangor
Carbon Co
V6
ABE
Easton
Phillipsburg
Spruce Run Reservoir
V164
ALLENTOWN-BETHLEHEM-EASTON
Bethlehem
15 NM
V30
ETX
ALLENTOWN
Alexandria
Sky Manor
V162
V39-162
Allentown Queen City
Kutztown
Lake Nockamixon
Van Sant
V29-147
Butter Valley
Quakertown
V149
Pennridge
Delaware River
V3
V276
Green Lane Reservoir
Doylestown
ARD
V143

AIRCRAFT LANDING AT ALLENTOWN-BETHLEHEM-EASTON, QUEEN CITY OR SLATINGTON AIRPORTS CONTACT ALLENTOWN APPROACH CONTROL 118.2/257.8

OVERFLIGHTS AND AIRCRAFT LANDING AT OTHER SATELLITE AIRPORTS CONTACT ALLENTOWN APPROACH CONTROL 119.65/257.8

LEGEND

⚑ VFR REPORTING POINTS

▨ SURFACE TO 5000' MSL

▦ 2300' MSL TO 5000' MSL

░ 1500' MSL TO 5000' MSL

Bangor, Pa.	NE	16NM
Phillipsburg, N.J.	E	12NM
Spruce Run Res.	E	23NM
Lake Nockamixon	SE	15NM
Quakertown Apt.	SSE	13NM
Green Lane Res.	S	18NM
Kutztown Apt.	WSW	18NM
Beltzville Lake	NW	15NM
Wild Creek Res.	NNW	17NM
Penn Forest Res.	NNW	18NM

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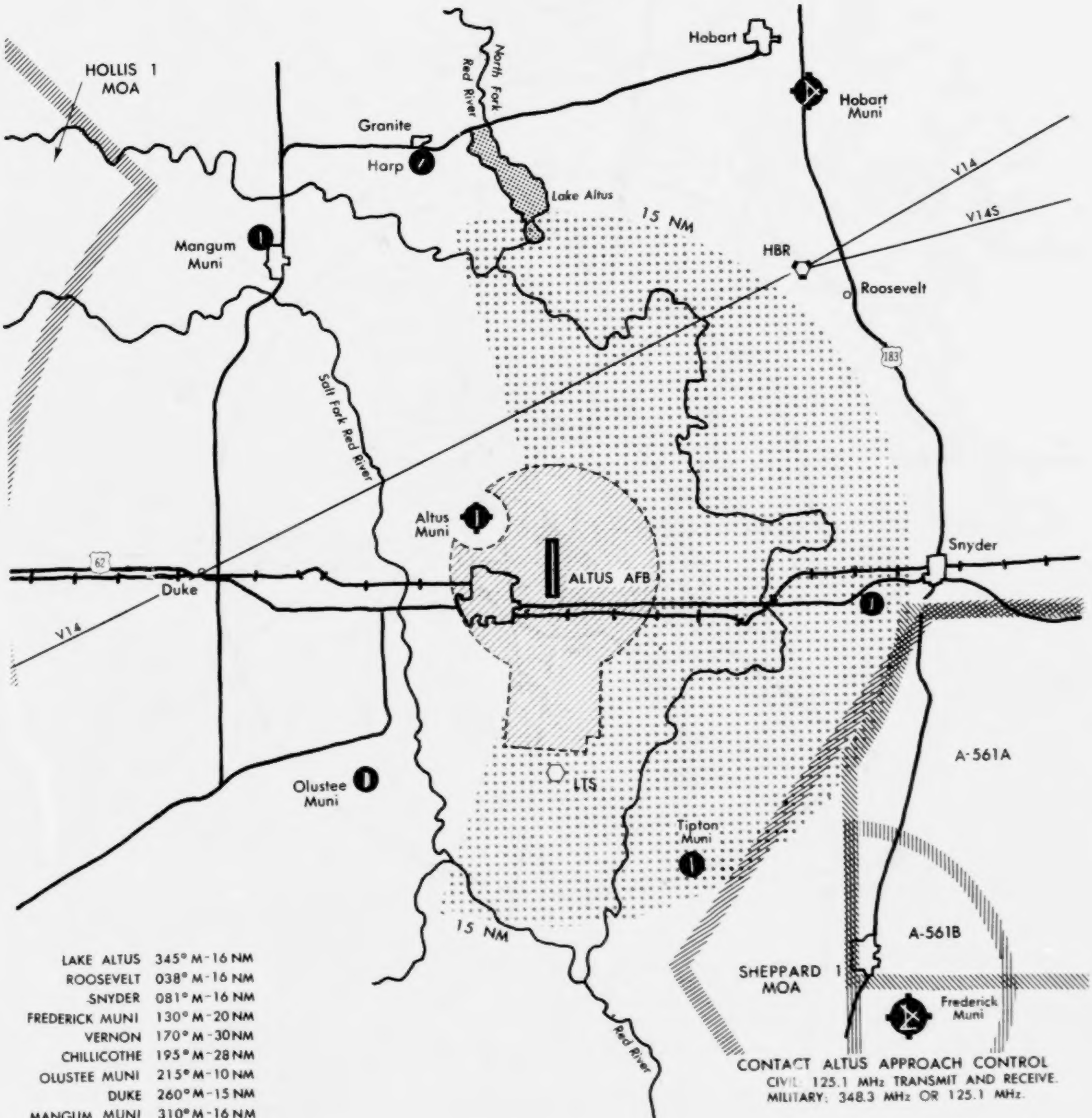
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALTUS, OKLAHOMA
ALTUS AFB
FIELD ELEV. 1378′ MSL

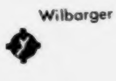

HOLLIS 1
MOA
North Fork Red River
Hobart
Hobart Muni
Granite
Harp
Lake Altus
15 NM
V14
V14S
HBR
Roosevelt
183
Mangum Muni
Salt Fork Red River
Altus Muni
ALTUS AFB
Snyder
62
Duke
V14
A-561A
Olustee Muni
LTS
Tipton Muni
15 NM
A-561B
SHEPPARD 1
MOA
Frederick Muni
Red River

LAKE ALTUS	345° M-16 NM
ROOSEVELT	038° M-16 NM
SNYDER	081° M-16 NM
FREDERICK MUNI	130° M-20 NM
VERNON	170° M-30 NM
CHILLICOTHE	195° M-28 NM
OLUSTEE MUNI	215° M-10 NM
DUKE	260° M-15 NM
MANGUM MUNI	310° M-16 NM

CONTACT ALTUS APPROACH CONTROL
CIVIL: 125.1 MHz TRANSMIT AND RECEIVE.
MILITARY: 348.3 MHz OR 125.1 MHz.

LEGEND

▨	SURFACE THROUGH 7000′ MSL WITHIN AIRPORT CONTROL ZONE
░	3500′ MSL THROUGH 7000′ MSL


Wilbarger Co

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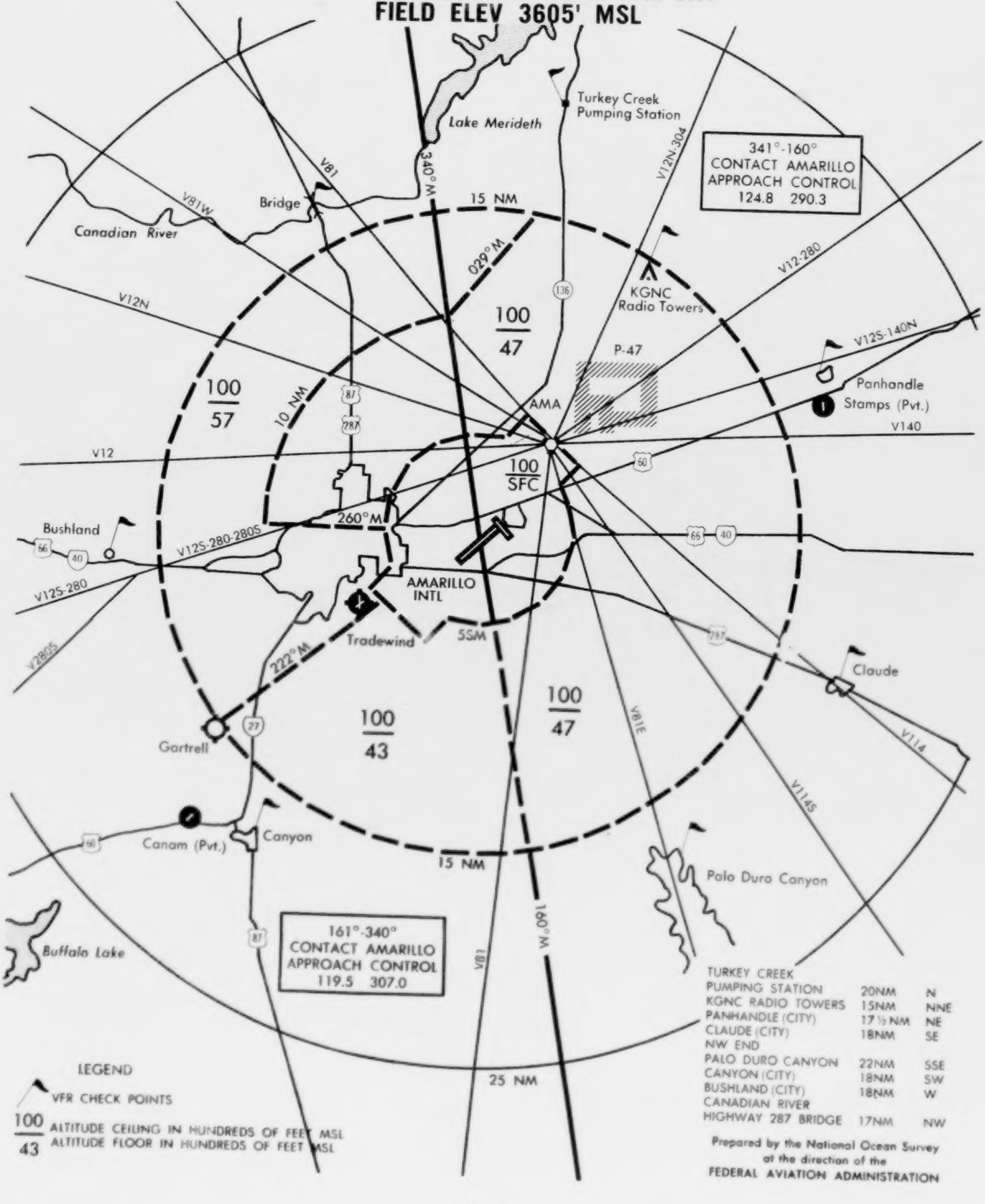
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL AIRPORT
FIELD ELEV 3605' MSL


Lake Merideth
Turkey Creek
Pumping Station
341°-160°
CONTACT AMARILLO
APPROACH CONTROL
124.8 290.3
V12N-304
V81
V81W
Bridge
Canadian River
340°M
15 NM
029°M
V12-280
136
KGNC
Radio Towers
V12N
100
47
P-47
V12S-140N
Panhandle
Stamps (Pvt.)
100
57
10 NM
87
287
AMA
V140
V12
100
SFC
60
260°M
Bushland
66
40
V12S-280-280S
66
40
V12S-280
AMARILLO
INTL
Tradewind
5SM
287
V280S
222°M
Claude
100
47
V81E
100
43
27
Gartrell
V114
V114S
Canam (Pvt.)
Canyon
66
15 NM
Palo Duro Canyon
160°M
87
161°-340°
CONTACT AMARILLO
APPROACH CONTROL
119.5 307.0
Buffalo Lake
V81
25 NM

TURKEY CREEK PUMPING STATION	20NM	N
KGNC RADIO TOWERS	15NM	NNE
PANHANDLE (CITY)	17 ½ NM	NE
CLAUDE (CITY) NW END	18NM	SE
PALO DURO CANYON	22NM	SSE
CANYON (CITY)	18NM	SW
BUSHLAND (CITY)	18NM	W
CANADIAN RIVER HIGHWAY 287 BRIDGE	17NM	NW

LEGEND

VFR CHECK POINTS

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
43 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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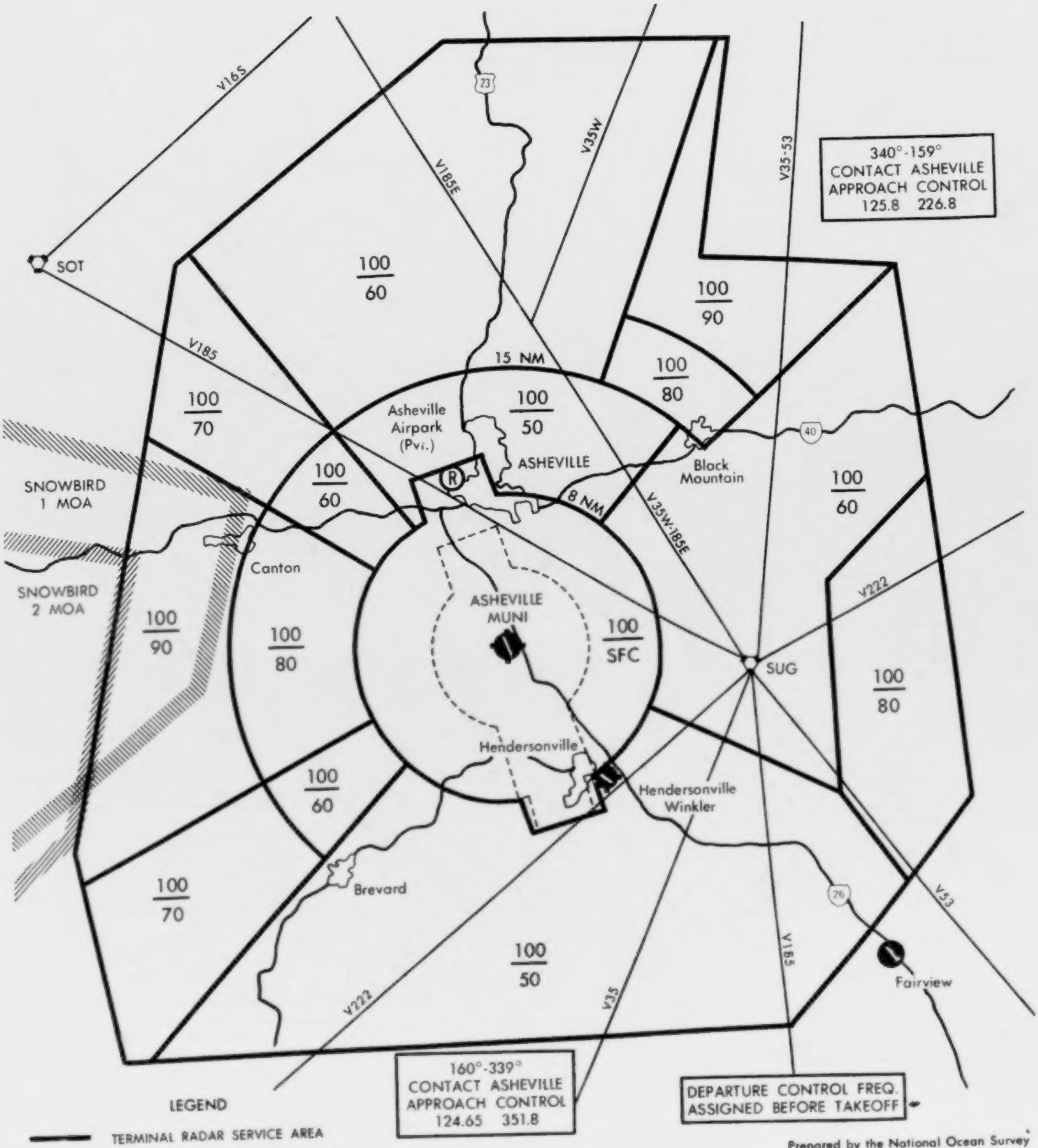
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ASHEVILLE, NORTH CAROLINA
FIELD ELEV. 2162


V165
V185E
V35W
V35-53
23
SOT
V185
100/60
100/90
100/80
100/70
15 NM
100/50
Asheville Airpark (Pvt.)
ASHEVILLE
R
40
Black Mountain
100/60
8 NM
V35W-185E
SNOWBIRD 1 MOA
SNOWBIRD 2 MOA
Canton
V222
ASHEVILLE MUNI
100/SFC
SUG
100/90
100/80
100/80
Hendersonville
Hendersonville Winkler
100/60
100/70
Brevard
26
V53
V185
Fairview
100/50
V222
V35

340°-159°
CONTACT ASHEVILLE
APPROACH CONTROL
125.8 226.8

160°-339°
CONTACT ASHEVILLE
APPROACH CONTROL
124.65 351.8

DEPARTURE CONTROL FREQ.
ASSIGNED BEFORE TAKEOFF

LEGEND

▬	TERMINAL RADAR SERVICE AREA
100	CEILING IN HUNDREDS OF FEET MSL
70	FLOOR IN HUNDREDS OF FEET MSL

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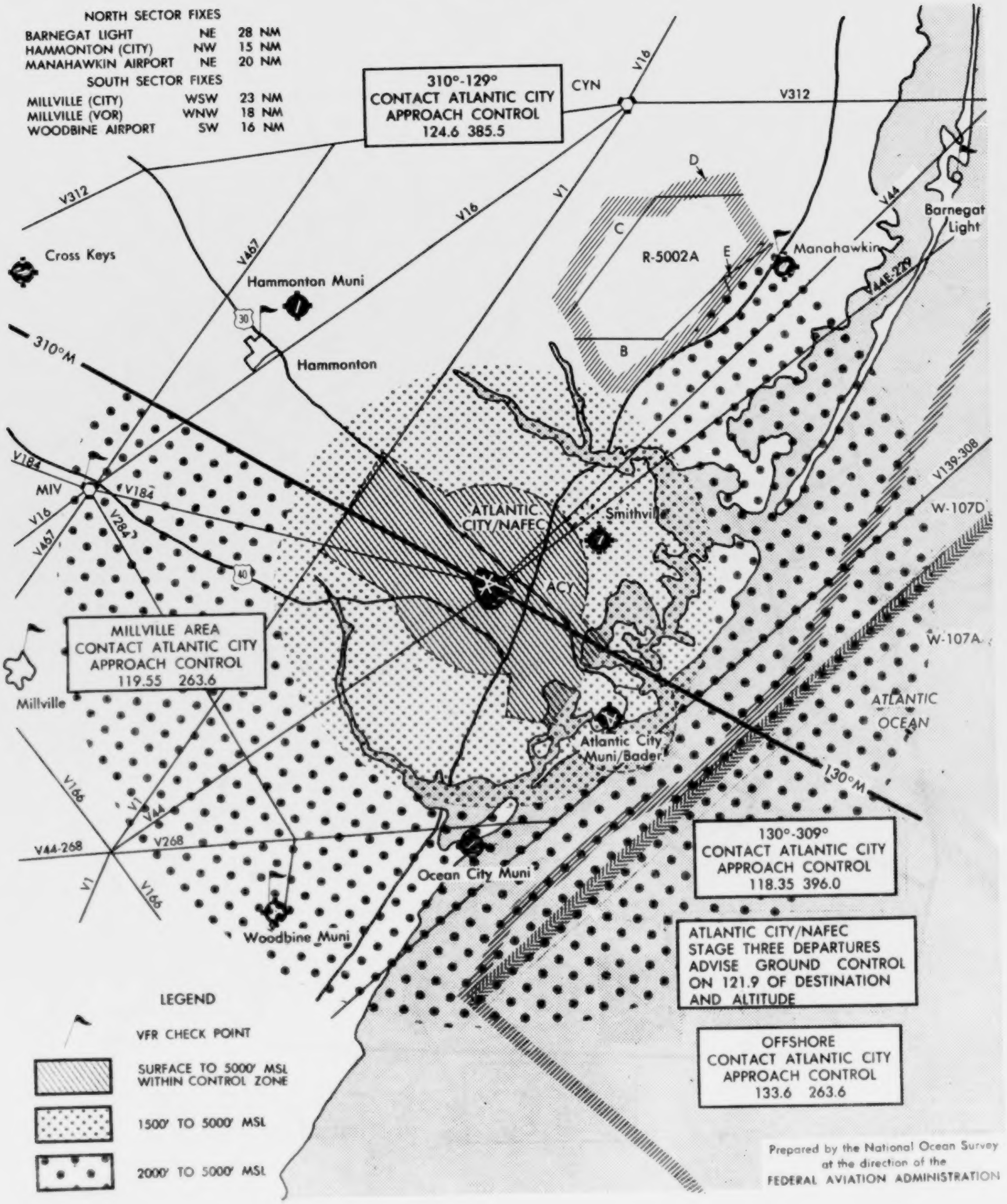
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ATLANTIC CITY, NEW JERSEY
ATLANTIC CITY NAFEC
FIELD ELEV 76' MSL


CYN
V16
V312
V1
V467
V44
V44E-229
D
C
E
B
R-5002A
Manahawkin
Barnegat Light
Cross Keys
Hammonton Muni
30
Hammonton
310°M
V184
MIV
V16
V467
V284
40
ATLANTIC CITY/NAFEC
Smithville
ACY
Atlantic City Muni/Bader
Millville
V139-308
W-107D
W-107A
ATLANTIC OCEAN
130°M
V166
V1
V44
V44-268
V268
V1
V166
Ocean City Muni
Woodbine Muni

NORTH SECTOR FIXES

BARNEGAT LIGHT	NE	28 NM
HAMMONTON (CITY)	NW	15 NM
MANAHAWKIN AIRPORT	NE	20 NM

SOUTH SECTOR FIXES

MILLVILLE (CITY)	WSW	23 NM
MILLVILLE (VOR)	WNW	18 NM
WOODBINE AIRPORT	SW	16 NM

310°-129°
CONTACT ATLANTIC CITY
APPROACH CONTROL
124.6 385.5

MILLVILLE AREA
CONTACT ATLANTIC CITY
APPROACH CONTROL
119.55 263.6

130°-309°
CONTACT ATLANTIC CITY
APPROACH CONTROL
118.35 396.0

ATLANTIC CITY/NAFEC
STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF DESTINATION
AND ALTITUDE

OFFSHORE
CONTACT ATLANTIC CITY
APPROACH CONTROL
133.6 263.6

LEGEND

VFR CHECK POINT

▨ SURFACE TO 5000' MSL WITHIN CONTROL ZONE

░ 1500' TO 5000' MSL

● 2000' TO 5000' MSL

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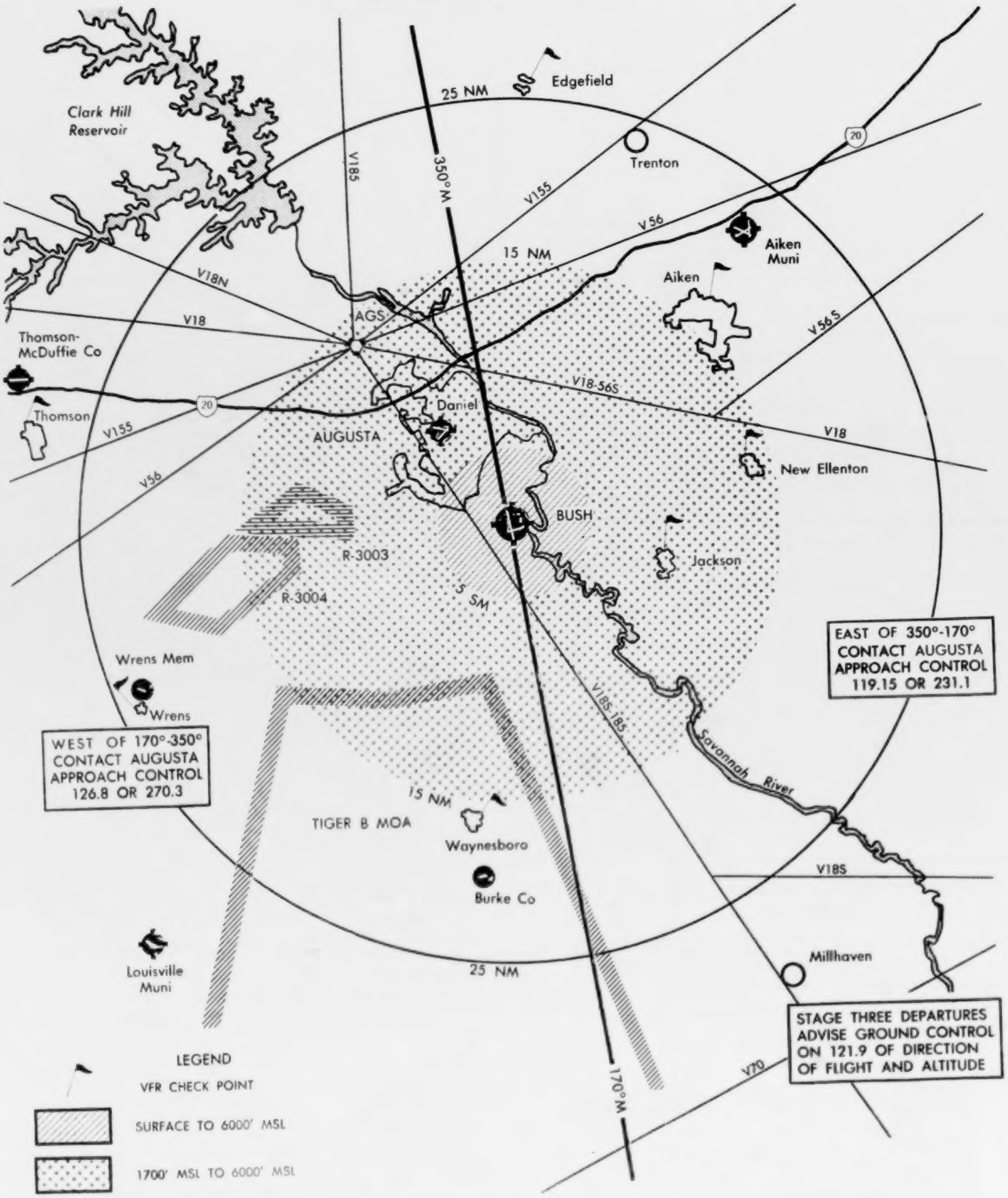
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AUGUSTA, GEORGIA
BUSH FIELD
FIELD ELEVATION 145′ MSL



Clark Hill Reservoir
Edgefield
25 NM
V185
350°M
Trenton
20
V155
V56
15 NM
Aiken Muni
Aiken
V18N
V18
AGS
Thomson-McDuffie Co
V56S
V18-56S
Daniel
Thomson
V155
20
AUGUSTA
V18
New Ellenton
V56
BUSH
R-3003
Jackson
R-3004
5 SM
Wrens Mem
V185-185
Wrens
Savannah River
15 NM
TIGER B MOA
Waynesboro
V185
Burke Co
Louisville Muni
25 NM
Millhaven
V70
170°M
LEGEND
VFR CHECK POINT
▨ SURFACE TO 6000′ MSL
░ 1700′ MSL TO 6000′ MSL

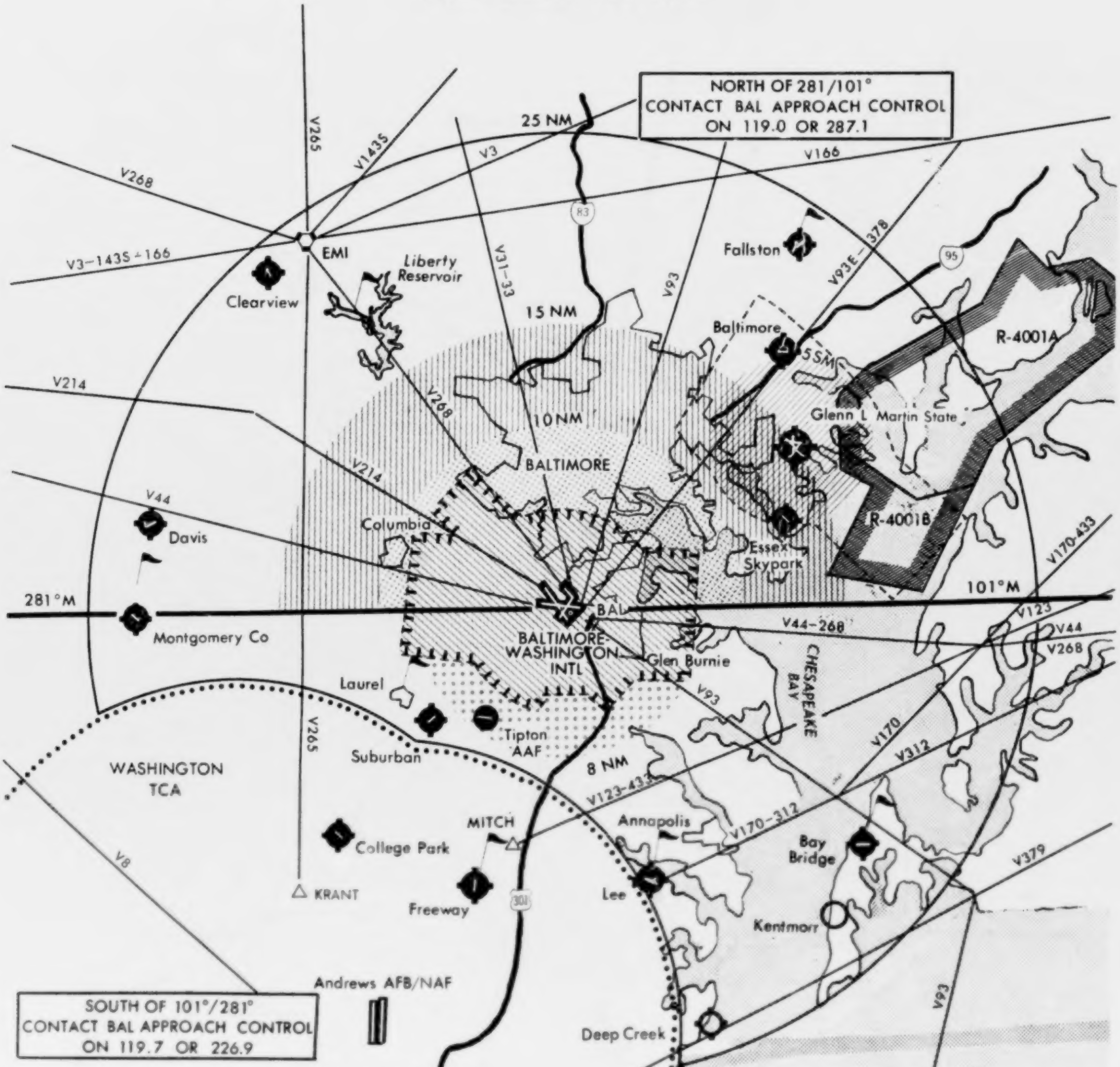
EAST OF 350°-170°
CONTACT AUGUSTA
APPROACH CONTROL
119.15 OR 231.1

WEST OF 170°-350°
CONTACT AUGUSTA
APPROACH CONTROL
126.8 OR 270.3

STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF DIRECTION
OF FLIGHT AND ALTITUDE

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BALTIMORE, MARYLAND, BALTIMORE-WASHINGTON INTL AIRPORT
FIELD ELEV. 156′ MSL


NORTH OF 281/101°
CONTACT BAL APPROACH CONTROL
ON 119.0 OR 287.1

SOUTH OF 101°/281°
CONTACT BAL APPROACH CONTROL
ON 119.7 OR 226.9

25 NM
15 NM
10 NM
8 NM
V265
V143S
V3
V166
V268
V3–143S–166
EMI
Clearview
Liberty Reservoir
V31–33
83
V93
Fallston
V93E–378
95
Baltimore
5 SM
R-4001A
R-4001B
Glenn L Martin State
V214
V44
Davis
Columbia
BALTIMORE
Essex Skypark
281°M
101°M
Montgomery Co
BAL
BALTIMORE-WASHINGTON INTL
Glen Burnie
V44–268
V123
V170-433
CHESAPEAKE BAY
Laurel
Tipton AAF
Suburban
WASHINGTON TCA
V170
V312
V123–433
MITCH
Annapolis
V170–312
Bay Bridge
College Park
V8
KRANT
Freeway
301
Lee
V379
Kentmorr
Andrews AFB/NAF
V93
Deep Creek

VFR FLIGHTS: DEPARTING AIRCRAFT PRIOR TO TAXIING ARE REQUESTED TO ADVISE BALTIMORE-WASHINGTON CLEARANCE DELIVERY OF THE INITIAL ROUTE OF FLIGHT AND ALTITUDE ON 126.75

ENROUTE AIRCRAFT REMAIN CLEAR OF AIRPORT TRAFFIC AREA AT GLENN L. MARTIN STATE AIRPORT AND THE TRAFFIC PATTERN BELOW 2000 FT. AT TIPTON AAF.

LEGEND

⚑	VFR CHECK POINT
▨	AIRPORT TRAFFIC AREA
▨	SFC TO 5000′ SOUTH OF RWY 10/28 LOCALIZER SFC TO 7000′ NORTH OF RWY 10/28 LOCALIZER
▒	2000′ TO 5000′
░	2000′ TO 7000′
▥	2500′ TO 7000′
▩	3000′ TO 7,000′

FALLSTON AIRPORT	NE 23 NM
BAY BRIDGE AIRPORT	SE 21 NM
LEE AIRPORT	SE 15 NM
FREEWAY AIRPORT	S 15 NM
LAUREL, MARYLAND	SW 11 NM
MONTGOMERY CO AIRPORT	W 23 NM
LIBERTY RESERVOIR	NW 17 NM

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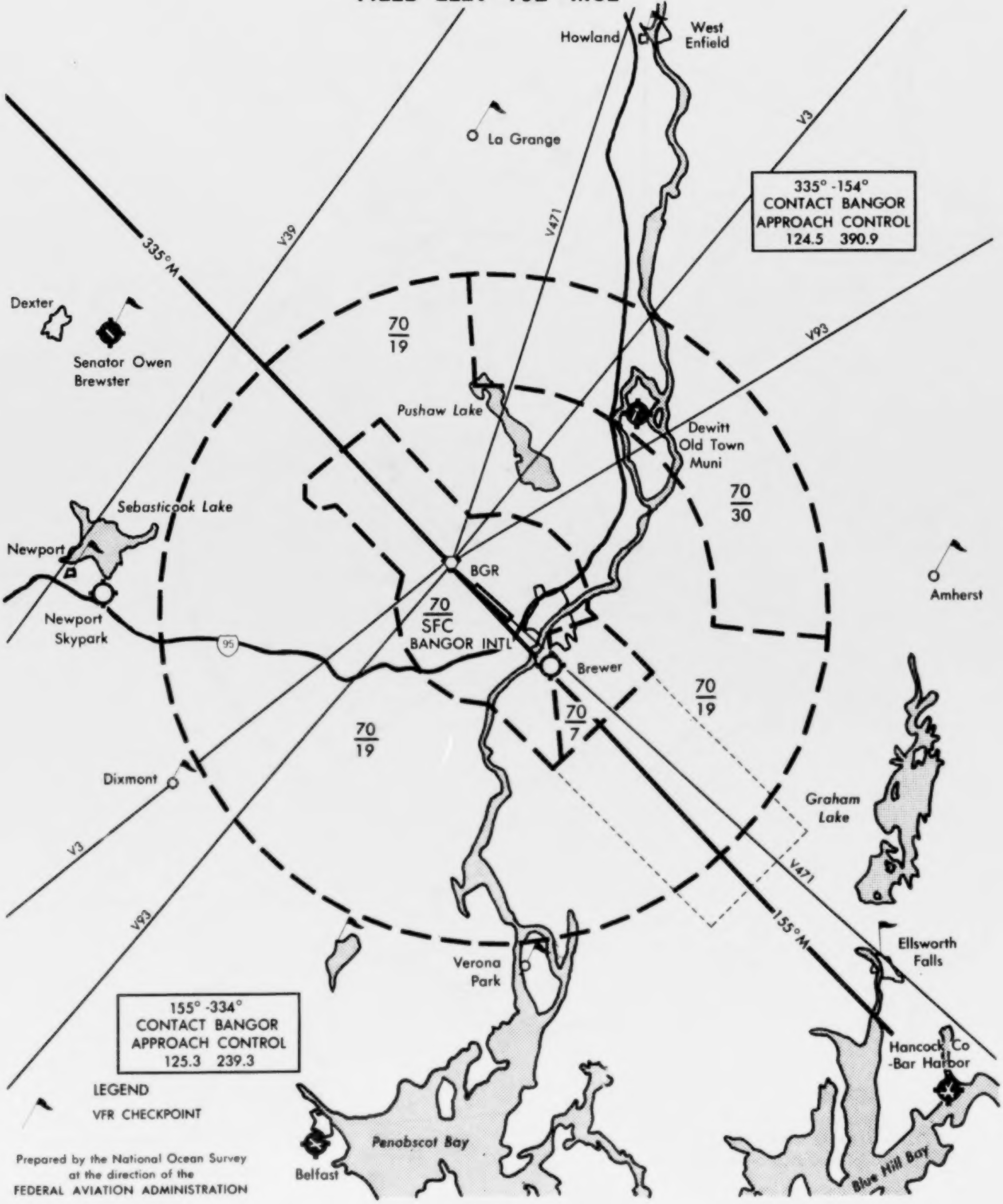
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BANGOR, MAINE
BANGOR INTL AIRPORT
FIELD ELEV 192′ MSL

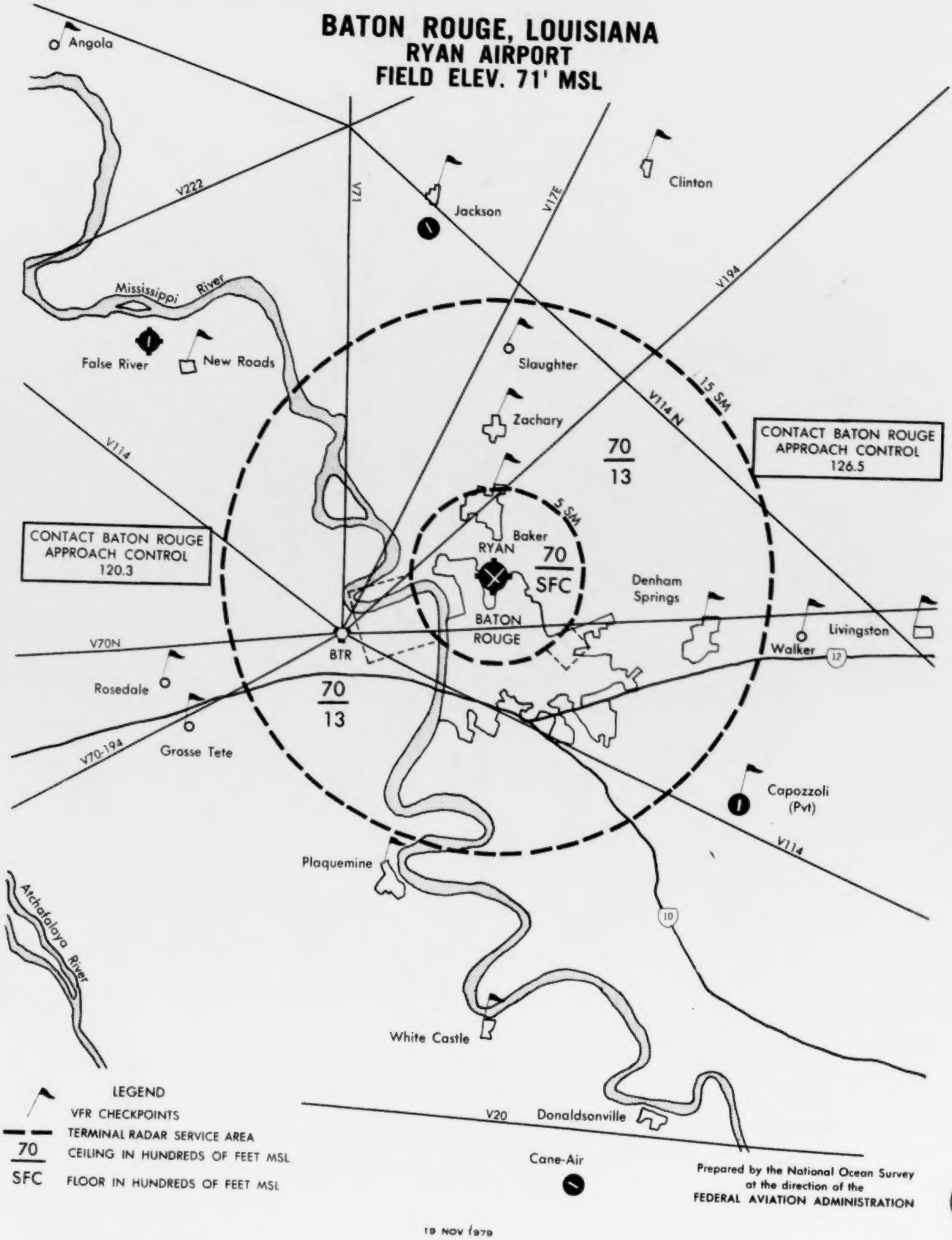

Howland
West Enfield
La Grange
V3
V471
V39
335° M
335° -154°
CONTACT BANGOR
APPROACH CONTROL
124.5 390.9
V93
Dexter
Senator Owen Brewster
70/19
Pushaw Lake
Dewitt Old Town Muni
70/30
Sebasticook Lake
Newport
Newport Skypark
BGR
Amherst
70/SFC
BANGOR INTL
95
Brewer
70/19
70/7
70/19
Dixmont
Graham Lake
V3
V471
V93
155° M
Verona Park
Ellsworth Falls
155° -334°
CONTACT BANGOR
APPROACH CONTROL
125.3 239.3
Hancock Co -Bar Harbor
LEGEND
VFR CHECKPOINT
Penobscot Bay
Belfast
Blue Hill Bay

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BATON ROUGE, LOUISIANA
RYAN AIRPORT
FIELD ELEV. 71' MSL


Angola
V222
V71
Jackson
V17E
Clinton
V194
Mississippi River
False River
New Roads
Slaughter
15 SM
V114 N
Zachary
CONTACT BATON ROUGE APPROACH CONTROL 126.5
70
13
V114
5 SM
Baker
RYAN
70
SFC
CONTACT BATON ROUGE APPROACH CONTROL 120.3
Denham Springs
BATON ROUGE
Livingston
Walker
12
V70N
BTR
Rosedale
70
13
Grosse Tete
V70-194
Capozzoli (Pvt)
V114
Plaquemine
10
Atchafalaya River
White Castle
LEGEND
VFR CHECKPOINTS
TERMINAL RADAR SERVICE AREA
70 CEILING IN HUNDREDS OF FEET MSL
SFC FLOOR IN HUNDREDS OF FEET MSL
V20
Donaldsonville
Cane-Air

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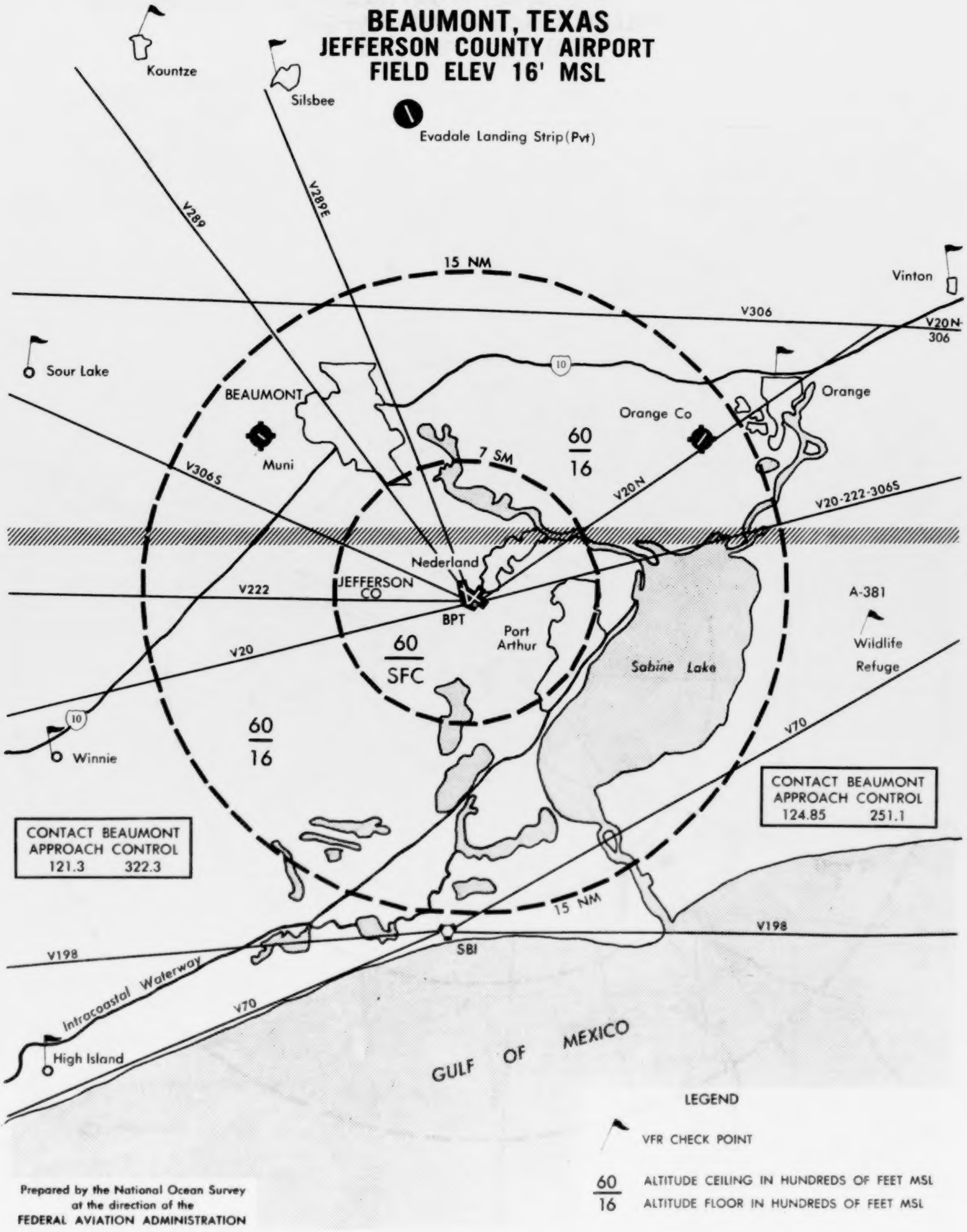
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BEAUMONT, TEXAS
JEFFERSON COUNTY AIRPORT
FIELD ELEV 16' MSL


Kountze
Silsbee
Evadale Landing Strip (Pvt)
V289
V289E
15 NM
Vinton
V306
V20N-306
Sour Lake
10
BEAUMONT
Orange Co
Orange
Muni
60
16
7 SM
V306S
V20N
V20-222-306S
Nederland
JEFFERSON CO
V222
BPT
A-381
Port Arthur
Wildlife Refuge
60
SFC
V20
Sabine Lake
10
Winnie
60
16
V70
15 NM
V198
SBI
V198
Intracoastal Waterway
V70
High Island
GULF OF MEXICO

CONTACT BEAUMONT
APPROACH CONTROL
121.3 322.3

CONTACT BEAUMONT
APPROACH CONTROL
124.85 251.1

LEGEND

⚑	VFR CHECK POINT
60	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
16	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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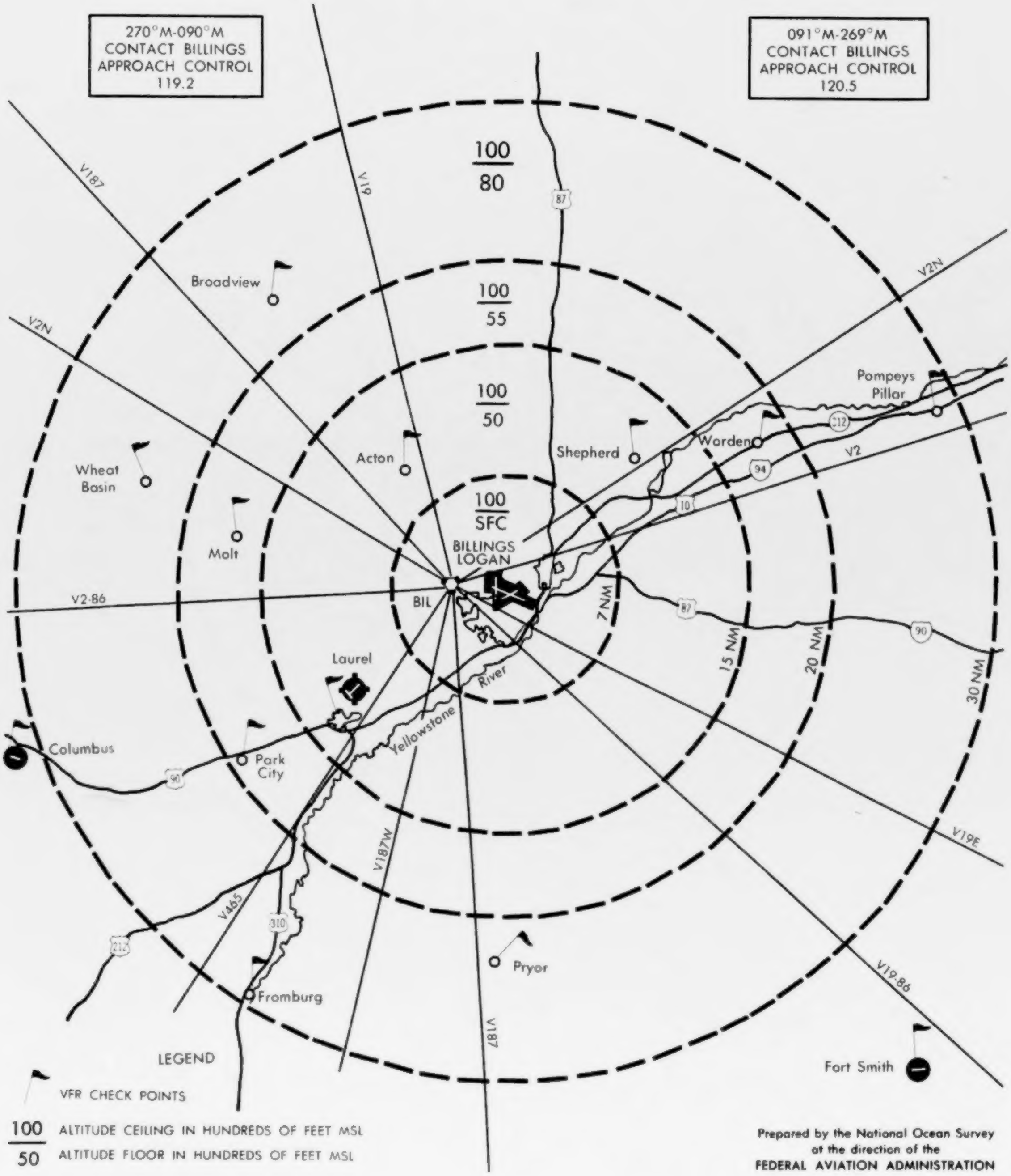
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BILLINGS, MONTANA
BILLINGS LOGAN INTL AIRPORT
FIELD ELEV 3605' MSL


270°M-090°M
CONTACT BILLINGS
APPROACH CONTROL
119.2
091°M-269°M
CONTACT BILLINGS
APPROACH CONTROL
120.5
100/80
100/55
100/50
100/SFC
V187
V19
V2N
87
Broadview
Wheat Basin
Molt
Acton
Shepherd
Worden
Pompeys Pillar
212
94
V2
10
BILLINGS LOGAN
BIL
V2-86
7 NM
15 NM
20 NM
30 NM
87
90
Laurel
Columbus
Park City
90
Yellowstone
River
V187W
V465
310
212
Pryor
Fromburg
V187
V19E
V19-86
Fort Smith
LEGEND
VFR CHECK POINTS
100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
50 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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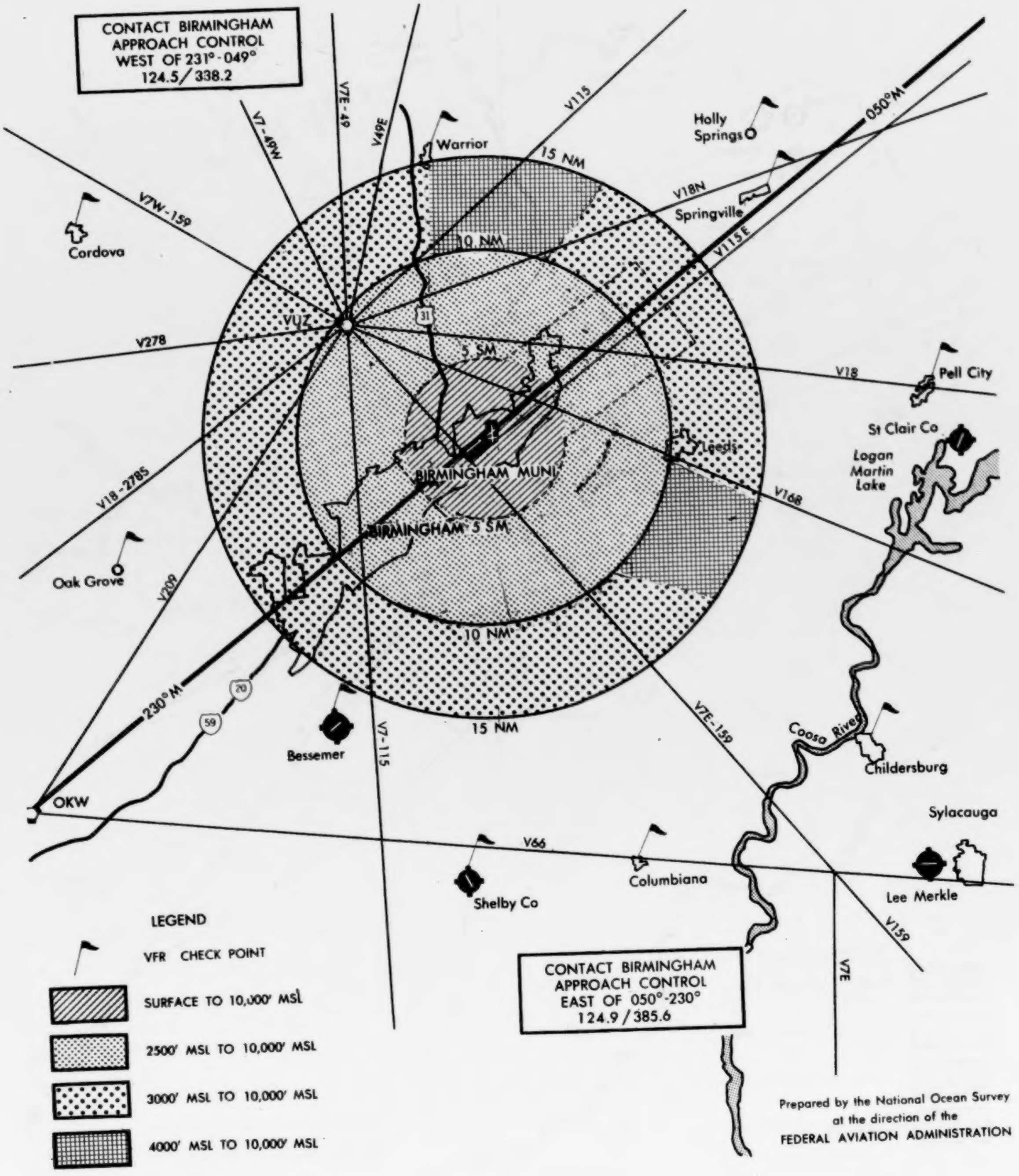
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BIRMINGHAM, ALABAMA, BIRMINGHAM MUNICPAL AIRPORT
FIELD ELEV. 643′ MSL


CONTACT BIRMINGHAM
APPROACH CONTROL
WEST OF 231°-049°
124.5/338.2
V7E-49
V49E
V7-49W
V115
V7W-159
Warrior
Holly Springs
15 NM
050°M
V18N
Springville
V115E
Cordova
10 NM
VUZ
31
V278
5 SM
V18
Pell City
St Clair Co
Leeds
Logan Martin Lake
V18-278S
BIRMINGHAM MUNI
V168
BIRMINGHAM 5 SM
Oak Grove
V209
10 NM
230°M
20
59
Bessemer
V7-115
15 NM
V7E-159
Coosa River
Childersburg
OKW
Sylacauga
V66
Columbiana
Shelby Co
Lee Merkle
V159
V7E
CONTACT BIRMINGHAM
APPROACH CONTROL
EAST OF 050°-230°
124.9/385.6
LEGEND
VFR CHECK POINT
SURFACE TO 10,000′ MSL
2500′ MSL TO 10,000′ MSL
3000′ MSL TO 10,000′ MSL
4000′ MSL TO 10,000′ MSL

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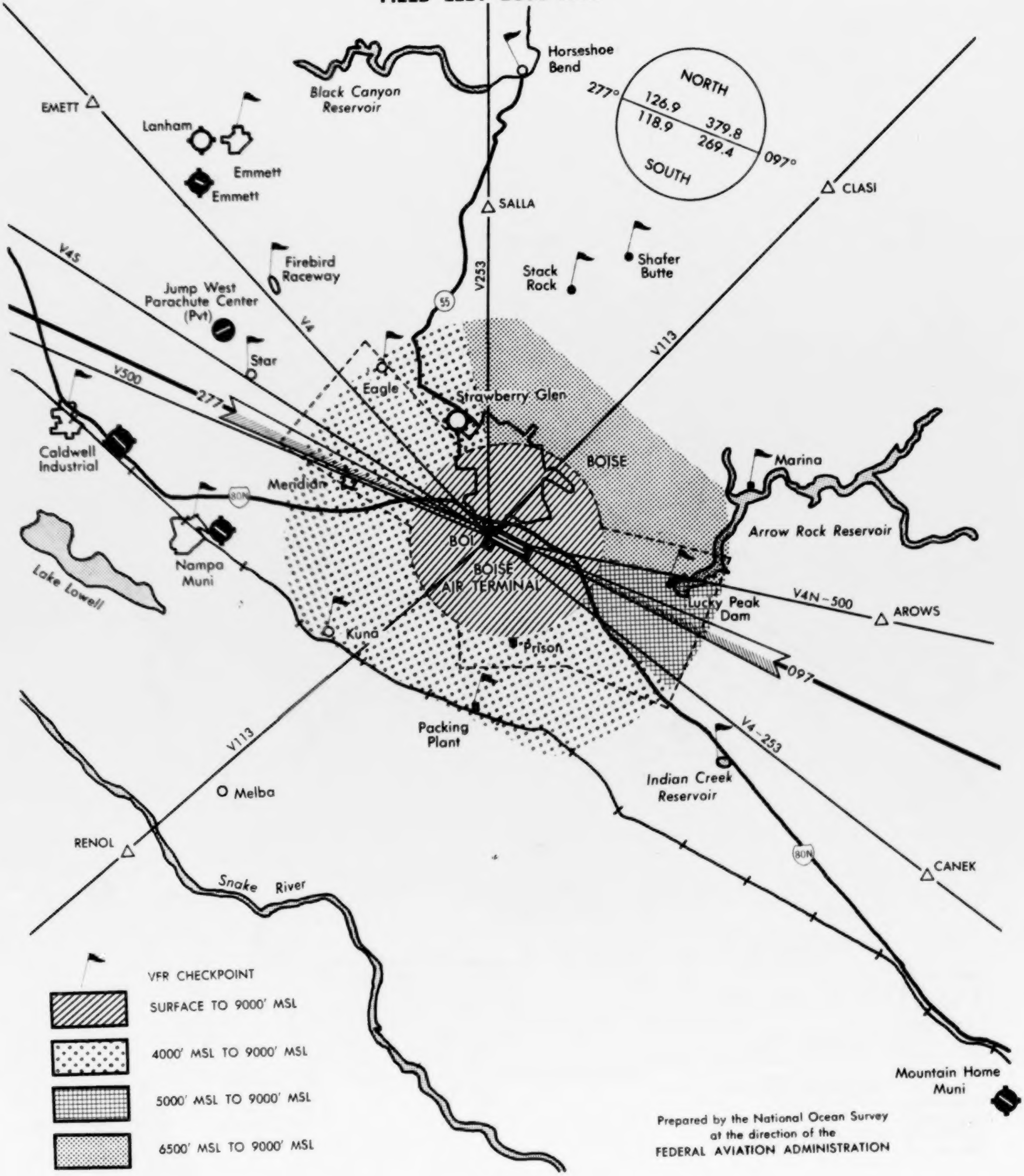
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BOISE, IDAHO
BOISE AIR TERMINAL
FIELD ELEV 2858′ MSL


Horseshoe Bend
Black Canyon Reservoir
NORTH
277°
126.9
118.9
379.8
269.4
097°
SOUTH
EMETT
Lanham
Emmett
Emmett
SALLA
CLASI
V45
V4
Firebird Raceway
Jump West Parachute Center (Pvt)
Stack Rock
Shafer Butte
V253
55
V113
Star
V500
277
Eagle
Strawberry Glen
Caldwell Industrial
Meridian
80N
BOISE
Marina
Arrow Rock Reservoir
Nampa Muni
Lake Lowell
BOI
BOISE AIR TERMINAL
Lucky Peak Dam
V4N-500
AROWS
Kuna
Prison
097
Packing Plant
V4-253
V113
Indian Creek Reservoir
Melba
RENOL
80N
CANEK
Snake River
Mountain Home Muni
VFR CHECKPOINT
SURFACE TO 9000′ MSL
4000′ MSL TO 9000′ MSL
5000′ MSL TO 9000′ MSL
6500′ MSL TO 9000′ MSL

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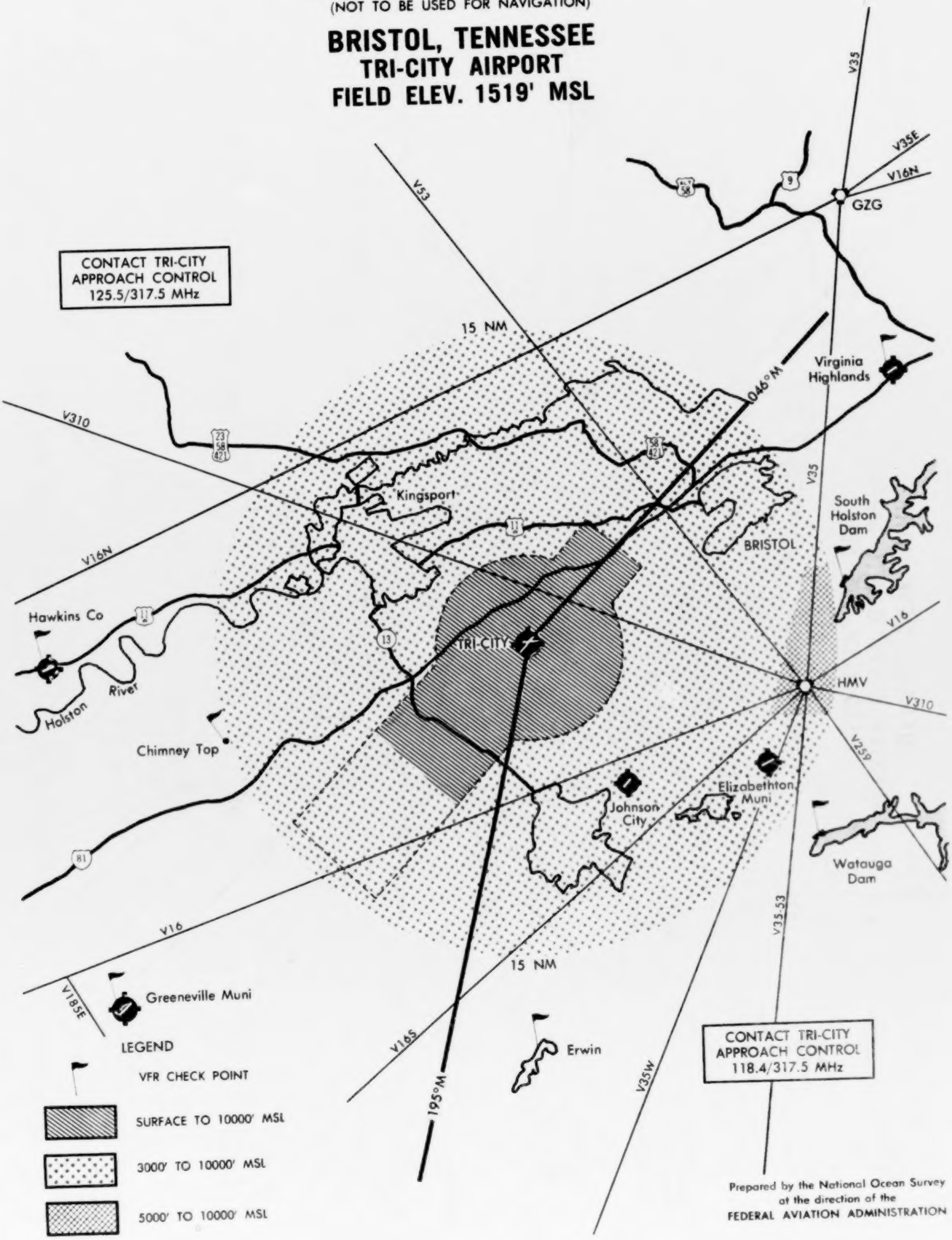
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BRISTOL, TENNESSEE
TRI-CITY AIRPORT
FIELD ELEV. 1519' MSL


CONTACT TRI-CITY APPROACH CONTROL 125.5/317.5 MHz
V35
V35E
V16N
GZG
9
58
V53
15 NM
046°M
Virginia Highlands
V310
23 58 421
58 421
Kingsport
V35
South Holston Dam
11
BRISTOL
V16N
V16
Hawkins Co
11
13
TRI-CITY
HMV
V310
Holston
River
Chimney Top
V259
Elizabethton Muni
Johnson City
Watauga Dam
81
V16
V35-53
15 NM
V18SE
Greeneville Muni
LEGEND
VFR CHECK POINT
SURFACE TO 10000' MSL
3000' TO 10000' MSL
5000' TO 10000' MSL
V16S
Erwin
195°M
V35W
CONTACT TRI-CITY APPROACH CONTROL 118.4/317.5 MHz

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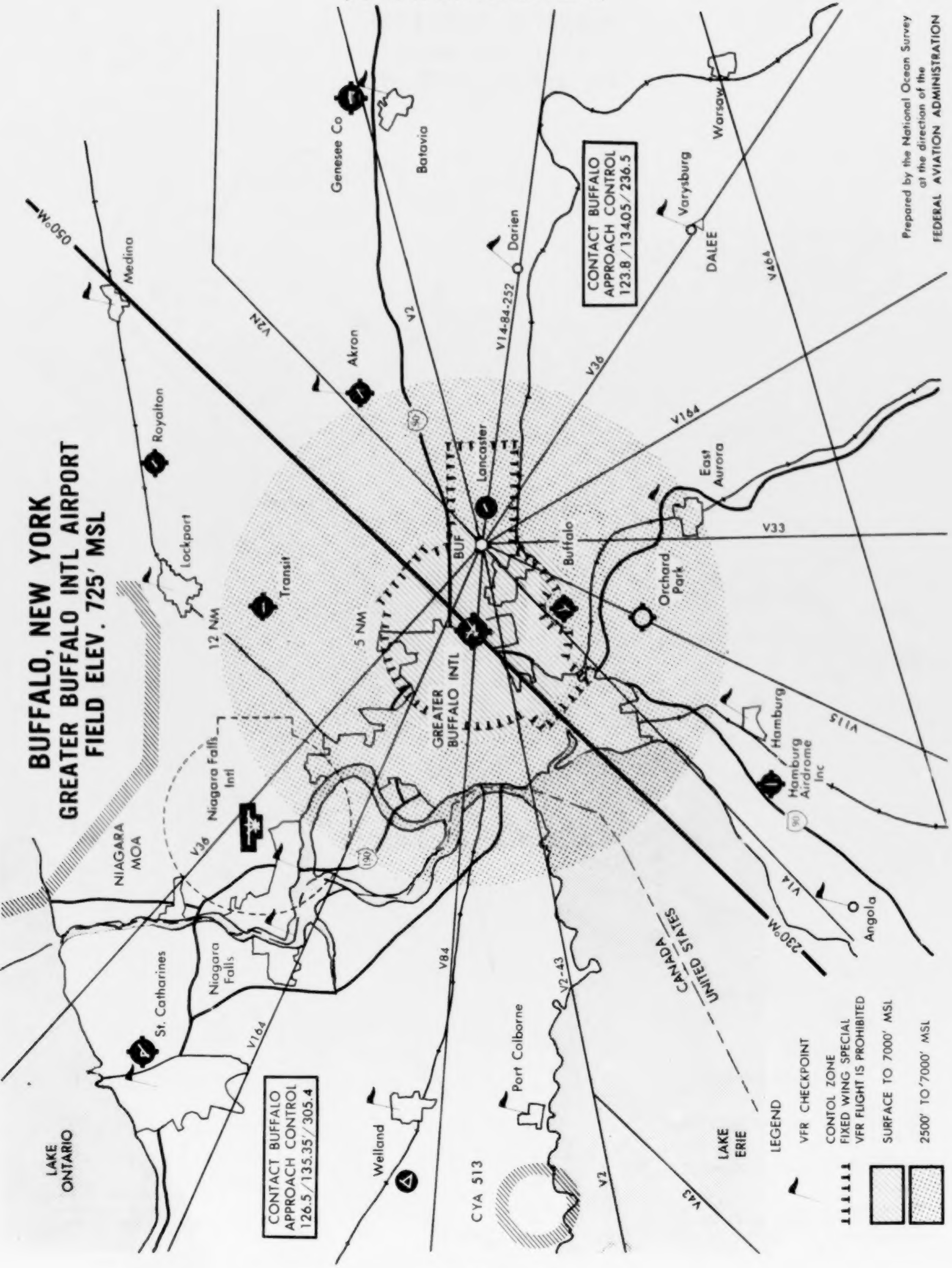
TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



BUFFALO, NEW YORK
GREATER BUFFALO INTL AIRPORT
FIELD ELEV. 725' MSL

CONTACT BUFFALO
APPROACH CONTROL
123.8/134.05/236.5
CONTACT BUFFALO
APPROACH CONTROL
126.5/135.35/305.4
050°M
230°M
Medina
Royalton
Lockport
Akron
Genesee Co
Batavia
Darien
Varysburg
DALEE
Warsaw
Lancaster
BUF
Buffalo
Transit
East Aurora
Orchard Park
Hamburg
Hamburg Airdrome Inc
Angola
GREATER BUFFALO INTL
5 NM
12 NM
Niagara Falls Intl
NIAGARA MOA
Niagara Falls
St. Catharines
Welland
Port Colborne
CYA 513
LAKE ONTARIO
LAKE ERIE
CANADA
UNITED STATES
V2N
V2
V14-84-252
V36
V164
V33
V115
V14
V464
V84
V2-43
V43
90
190

LEGEND

- VFR CHECKPOINT
- CONTOL ZONE FIXED WING SPECIAL VFR FLIGHT IS PROHIBITED
- SURFACE TO 7000' MSL
- 2500' TO 7000' MSL

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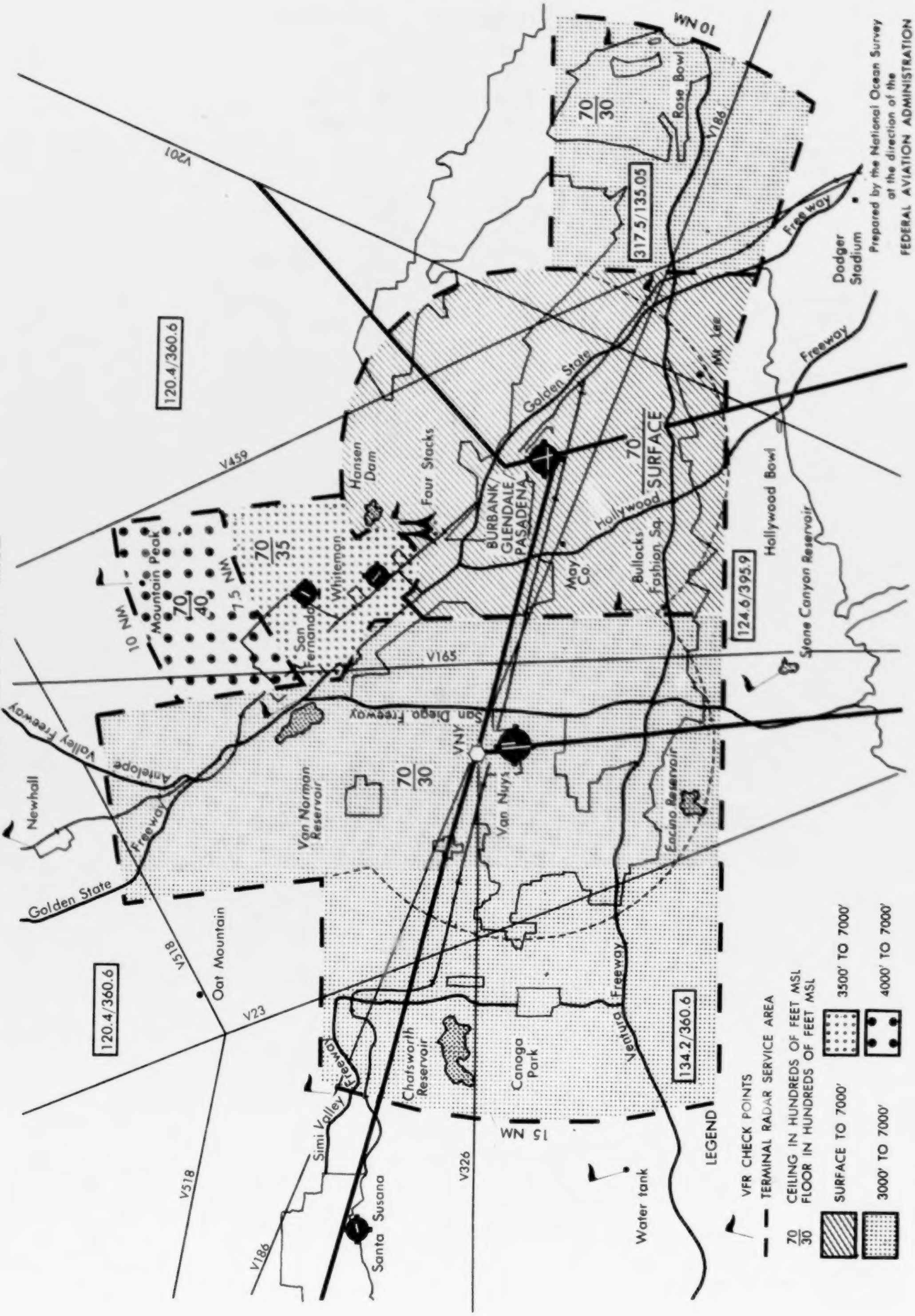
29 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BURBANK, CALIF.
BURBANK/GLENDALE/PASADENA AIRPORT
FIELD ELEV. 774' MSL


120.4/360.6
120.4/360.6
317.5/135.05
124.6/395.9
134.2/360.6
70/30
70/30
70/35
70/40
70/30
70/SURFACE
10 NM
15 NM
10 NM
7.5 NM
V201
V459
V165
V186
V186
V518
V518
V23
V326
Golden State
Freeway
Antelope Valley Freeway
San Diego Freeway
Golden State
Hollywood
Freeway
Free way
Ventura Freeway
Simi Valley
Freeway
Newhall
Oat Mountain
Van Norman Reservoir
Mountain Peak
San Fernando
Whiteman
Hansen Dam
Four Stacks
BURBANK GLENDALE PASADENA
May Co.
Bullocks Fashion Sq.
Mt. Lee
Rose Bowl
Dodger Stadium
Hollywood Bowl
Stone Canyon Reservoir
Encino Reservoir
VNY
Van Nuys
Chatsworth Reservoir
Canoga Park
Santa Susana
Water tank
LEGEND
VFR CHECK POINTS
TERMINAL RADAR SERVICE AREA
70/30 CEILING IN HUNDREDS OF FEET MSL / FLOOR IN HUNDREDS OF FEET MSL
SURFACE TO 7000'
3500' TO 7000'
3000' TO 7000'
4000' TO 7000'

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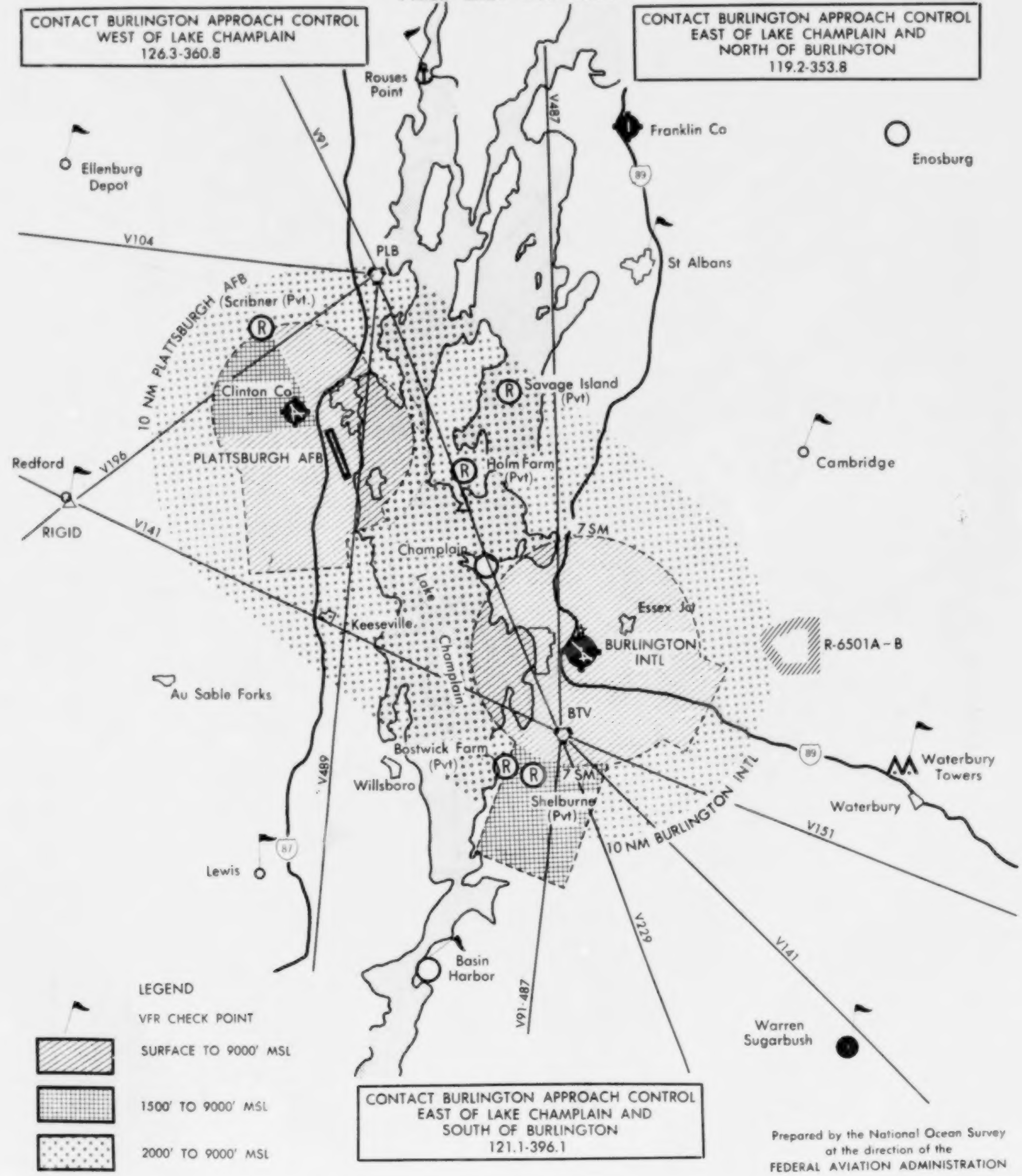
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BURLINGTON, VERMONT
BURLINGTON INTL
FIELD ELEV 335' MSL
PLATTSBURGH AFB
FIELD ELEV 235' MSL


CONTACT BURLINGTON APPROACH CONTROL
WEST OF LAKE CHAMPLAIN
126.3-360.8
CONTACT BURLINGTON APPROACH CONTROL
EAST OF LAKE CHAMPLAIN AND
NORTH OF BURLINGTON
119.2-353.8
Rouses Point
V91
V487
Franklin Co
89
Enosburg
Ellenburg Depot
V104
PLB
St Albans
10 NM PLATTSBURGH AFB
(Scribner (Pvt.)
R
Clinton Co
Savage Island (Pvt)
Cambridge
Redford
V196
10
PLATTSBURGH AFB
Holm Farm (Pvt)
RIGID
V141
7 SM
Champlain
Lake Champlain
Essex Jct
Keeseville
BURLINGTON INTL
R-6501A-B
Au Sable Forks
BTV
Bostwick Farm (Pvt)
Willsboro
V489
7 SM
Shelburne (Pvt)
10 NM BURLINGTON INTL
Waterbury Towers
Waterbury
V151
87
Lewis
V229
V141
Basin Harbor
V91-487
Warren Sugarbush
LEGEND
VFR CHECK POINT
SURFACE TO 9000' MSL
1500' TO 9000' MSL
2000' TO 9000' MSL
CONTACT BURLINGTON APPROACH CONTROL
EAST OF LAKE CHAMPLAIN AND
SOUTH OF BURLINGTON
121.1-396.1

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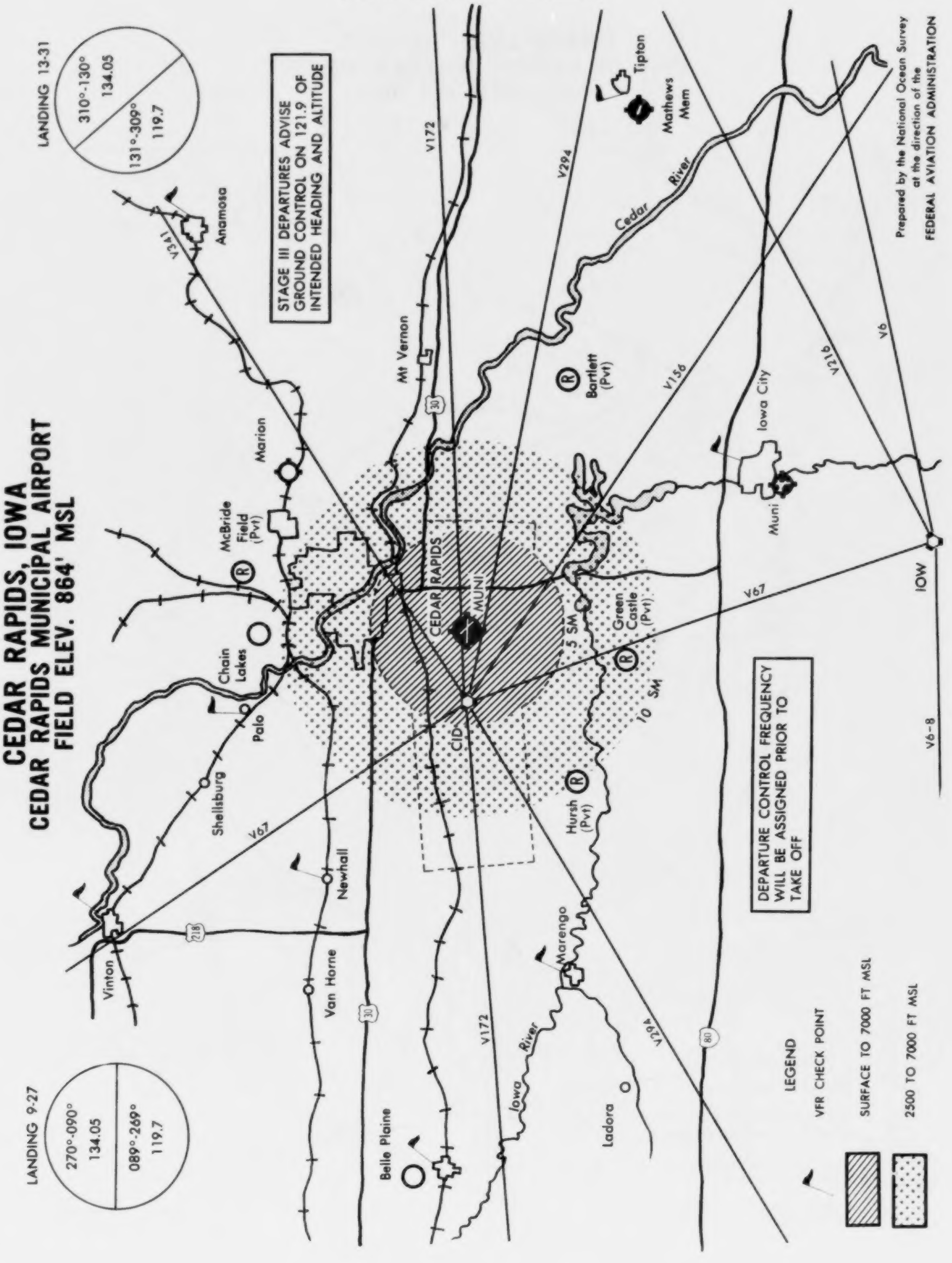
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)



CEDAR RAPIDS, IOWA
CEDAR RAPIDS MUNICIPAL AIRPORT
FIELD ELEV. 864' MSL

LANDING 9-27
270°-090° 134.05
089°-269° 119.7

LANDING 13-31
310°-130° 134.05
131°-309° 119.7

STAGE III DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDED HEADING AND ALTITUDE

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF

LEGEND
VFR CHECK POINT
▨ SURFACE TO 7000 FT MSL
░ 2500 TO 7000 FT MSL

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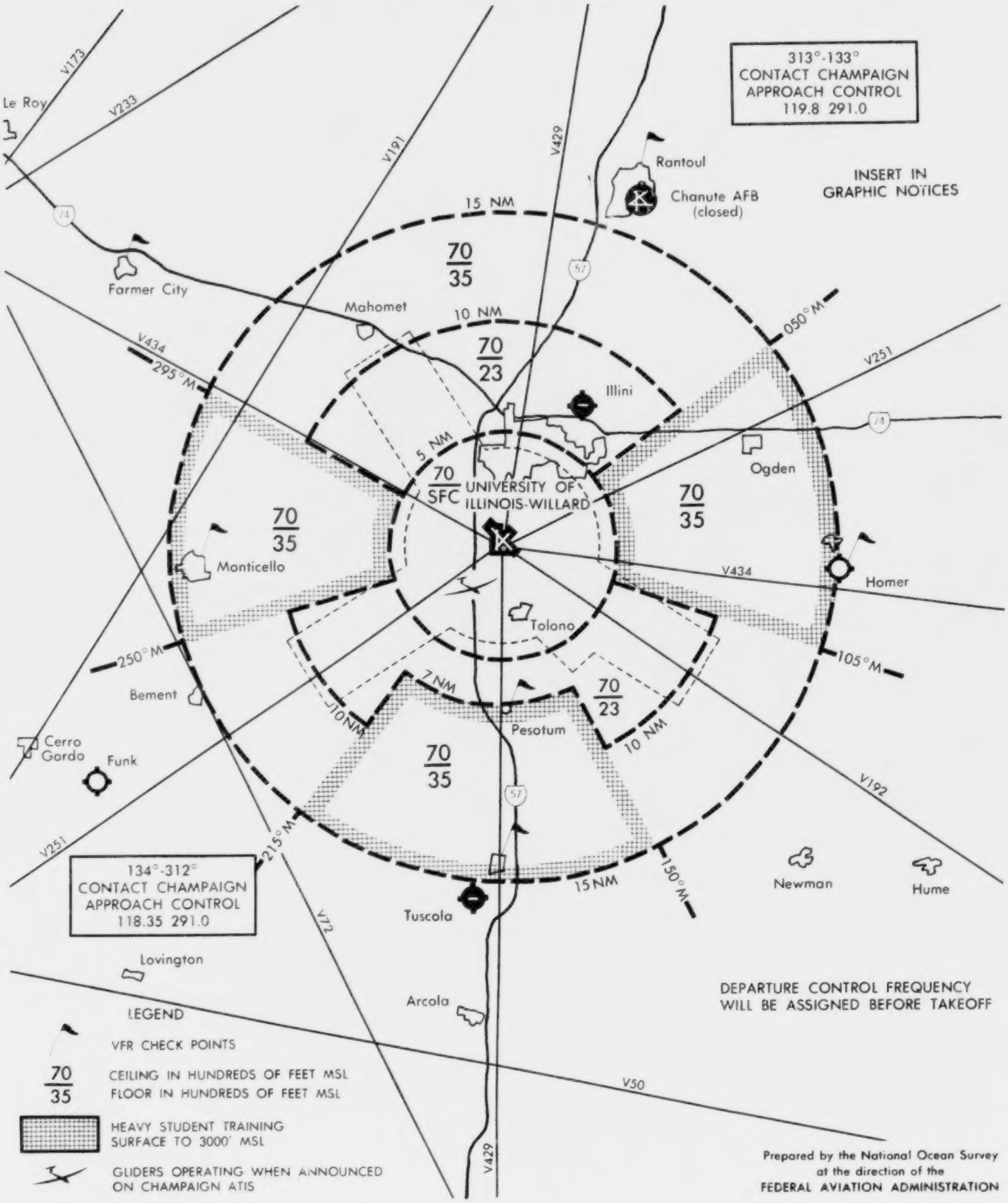
FEDERAL AVIATION ADMINISTRATION

Vinton
218
Van Horne
30
Newhall
Shellsburg
V67
Palo
Chain Lakes
McBride Field (Pvt)
Marion
Anamosa
V341
Mt Vernon
30
V172
V294
Tipton
Mathews Mem
Cedar River
Bartlett (Pvt)
V156
Iowa City
Muni
V216
V6
IOW
V6-8
V67
Green Castle (Pvt)
CEDAR RAPIDS
MUNI
CID
5 SM
10 SM
Hursh (Pvt)
Marengo
Iowa River
V172
V294
80
Ladora
Belle Plaine

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CHAMPAIGN, ILLINOIS
UNIV OF ILLINOIS WILLARD AIRPORT
FIELD ELEV 754' MSL


V173
Le Roy
V233
V191
V429
Rantoul
Chanute AFB
(closed)
74
15 NM
70
35
57
Farmer City
Mahomet
10 NM
70
23
050°M
V251
Illini
V434
295°M
5 NM
74
Ogden
70
SFC
UNIVERSITY OF
ILLINOIS-WILLARD
70
35
70
35
Monticello
V434
Homer
Tolono
250°M
105°M
7 NM
70
23
Bement
10NM
Pesotum
10 NM
Cerro
Gordo
Funk
70
35
57
V192
V251
215°M
150°M
15 NM
Newman
Hume
Tuscola
V72
Lovington
Arcola
V50
V429

313°-133°
CONTACT CHAMPAIGN
APPROACH CONTROL
119.8 291.0

INSERT IN
GRAPHIC NOTICES

134°-312°
CONTACT CHAMPAIGN
APPROACH CONTROL
118.35 291.0

DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF

LEGEND

⚑	VFR CHECK POINTS
70	CEILING IN HUNDREDS OF FEET MSL
35	FLOOR IN HUNDREDS OF FEET MSL
▨	HEAVY STUDENT TRAINING SURFACE TO 3000' MSL
✈	GLIDERS OPERATING WHEN ANNOUNCED ON CHAMPAIGN ATIS

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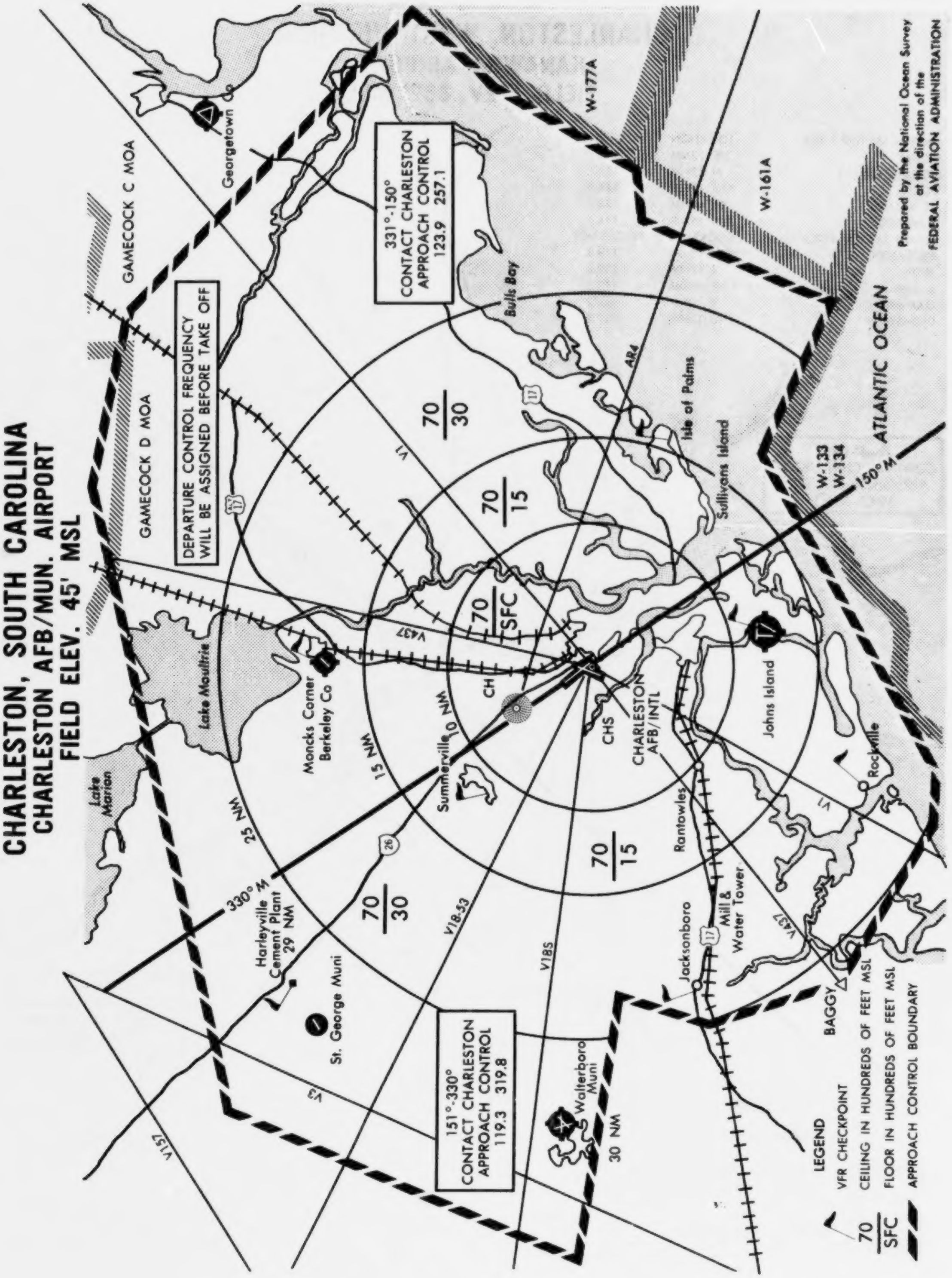
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 NOV 1979

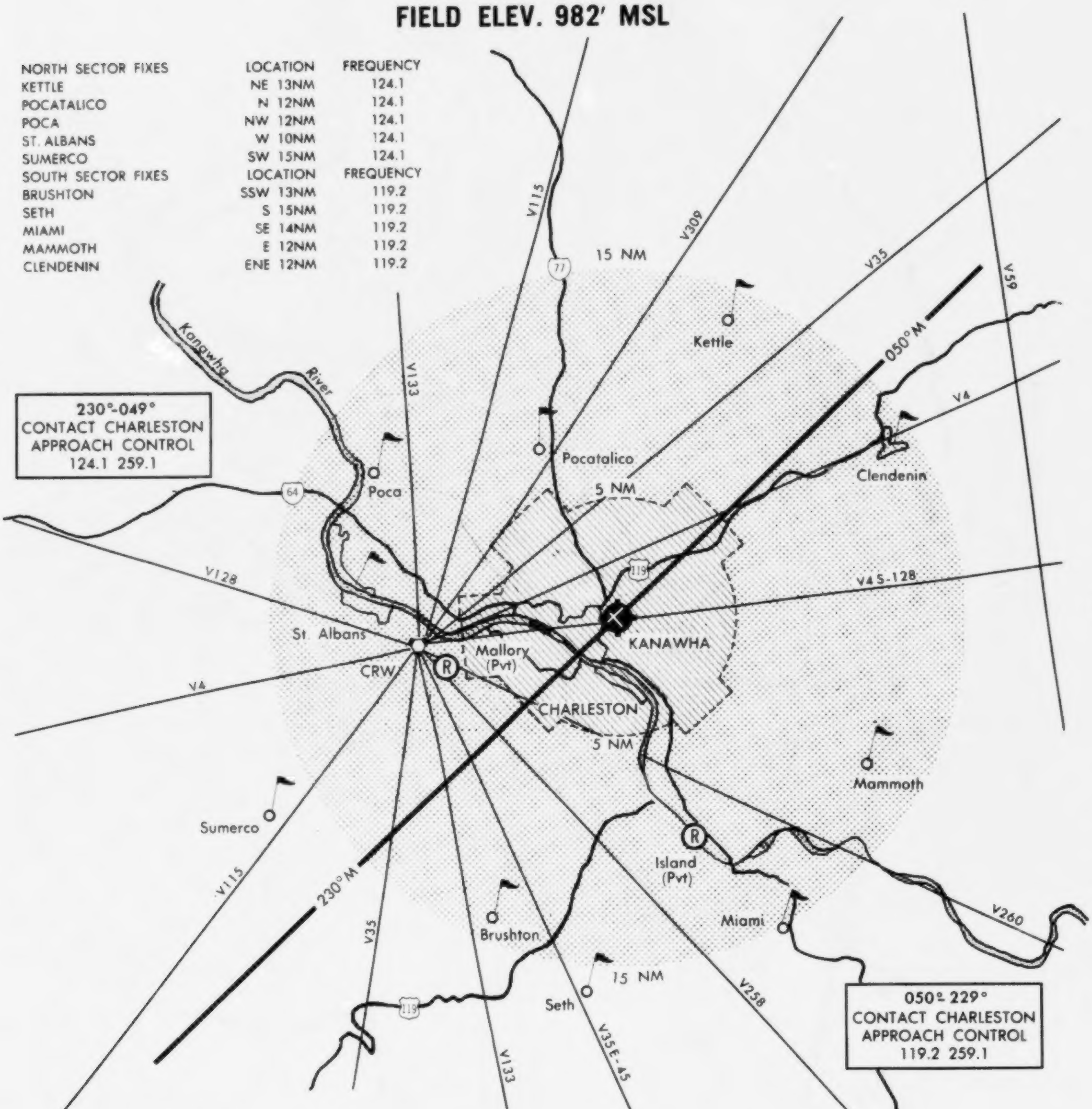
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)


CHARLESTON, SOUTH CAROLINA
CHARLESTON AFB/MUN. AIRPORT
FIELD ELEV. 45' MSL
331°-150° CONTACT CHARLESTON APPROACH CONTROL 123.9 257.1
151°-330° CONTACT CHARLESTON APPROACH CONTROL 119.3 319.8
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF
GAMECOCK C MOA
GAMECOCK D MOA
W-177A
W-161A
W-133
W-134
ATLANTIC OCEAN
Georgetown Co
Bulls Bay
AR4
Isle of Palms
Sullivans Island
Lake Marion
Lake Moultrie
Moncks Corner Berkeley Co
Summerville
CHARLESTON AFB/INTL
CHS
CH
Johns Island
Rockville
Rantowles
Jacksonboro
Mill & Water Tower
BAGGY
Harleyville Cement Plant 29 NM
St. George Muni
Walterboro Muni
330° M
150° M
10 NM
15 NM
25 NM
30 NM
70/SFC
70/15
70/15
70/30
70/30
V1
V1
V3
V157
V185
V18-53
V437
V437
17
17
26
LEGEND
VFR CHECKPOINT
70/SFC
CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL
APPROACH CONTROL BOUNDARY
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLESTON, WEST VIRGINIA
KANAWHA AIRPORT
FIELD ELEV. 982′ MSL

NORTH SECTOR FIXES	LOCATION	FREQUENCY
KETTLE	NE 13NM	124.1
POCATALICO	N 12NM	124.1
POCA	NW 12NM	124.1
ST. ALBANS	W 10NM	124.1
SUMERCO	SW 15NM	124.1
SOUTH SECTOR FIXES	**LOCATION**	**FREQUENCY**
BRUSHTON	SSW 13NM	119.2
SETH	S 15NM	119.2
MIAMI	SE 14NM	119.2
MAMMOTH	E 12NM	119.2
CLENDENIN	ENE 12NM	119.2


V115
V309
V35
V59
77
15 NM
Kettle
050° M
Kanawha
River
V133
V4
Clendenin
Pocatalico
Poca
64
5 NM
119
V128
V4 5-128
St. Albans
KANAWHA
CRW
R
Mallory
(Pvt)
V4
CHARLESTON
5 NM
Mammoth
Sumerco
R
Island
(Pvt)
V115
230° M
V35
Brushton
Miami
V260
15 NM
Seth
V258
119
V133
V35E-45

230°-049°
CONTACT CHARLESTON
APPROACH CONTROL
124.1 259.1

050°-229°
CONTACT CHARLESTON
APPROACH CONTROL
119.2 259.1

LEGEND

VFR CHECK POINT

▨ SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE

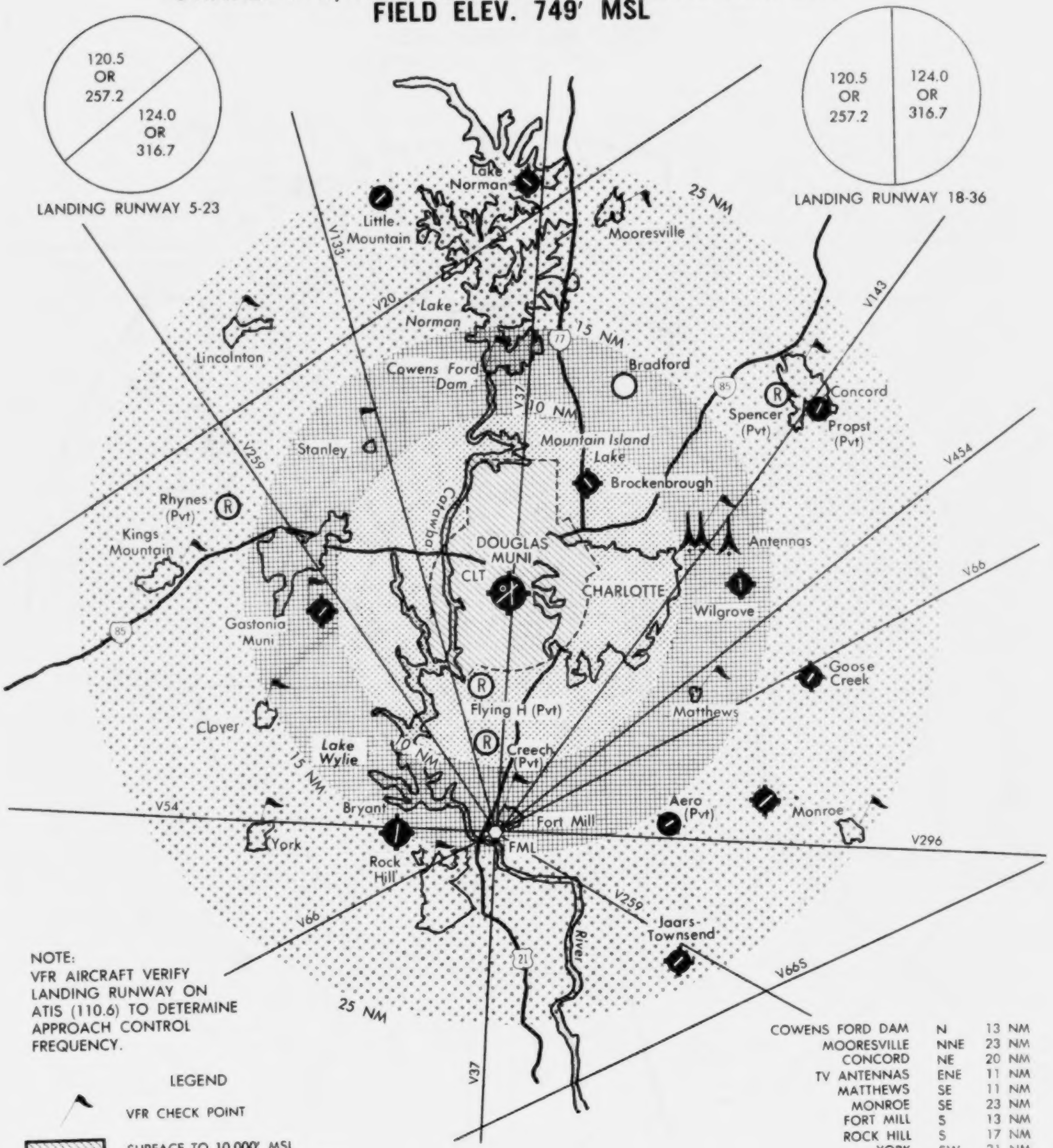
░ 3000′ TO 7000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

18 MAY 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLOTTE, N.C. DOUGLAS MUNICIPAL AIRPORT
FIELD ELEV. 749′ MSL


120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 5-23
120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 18-36
Lake Norman
Little Mountain
V133
V20
Lake Norman
25 NM
Mooresville
V143
15 NM
77
Bradford
Lincolnton
Cowens Ford Dam
V37
10 NM
85
Spencer (Pvt)
R
Concord
Propst (Pvt)
V259
Stanley
Mountain Island Lake
Brockenbrough
V454
Rhynes (Pvt)
R
Kings Mountain
Catawba
DOUGLAS MUNI
Antennas
CLT
CHARLOTTE
V66
85
Gastonia Muni
Wilgrove
Goose Creek
R
Flying H (Pvt)
Matthews
Clover
Lake Wylie
10 NM
R
Creech (Pvt)
15 NM
V54
Bryant
Fort Mill
Aero (Pvt)
Monroe
York
FML
V296
Rock Hill
V259
V66
Jaars-Townsend
River
21
V66S
25 NM
V37

NOTE:
VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (110.6) TO DETERMINE APPROACH CONTROL FREQUENCY.

LEGEND

VFR CHECK POINT

▨ SURFACE TO 10,000′ MSL WITHIN AIRPORT CONTROL ZONE

▨ 1460′ MSL TO 10,000′ MSL

▨ 2300′ MSL TO 10,000′ MSL

▨ 5000′ MSL TO 10,000′ MSL

COWENS FORD DAM	N	13 NM
MOORESVILLE	NNE	23 NM
CONCORD	NE	20 NM
TV ANTENNAS	ENE	11 NM
MATTHEWS	SE	11 NM
MONROE	SE	23 NM
FORT MILL	S	13 NM
ROCK HILL	S	17 NM
YORK	SW	21 NM
CLOVER	SW	16 NM
GASTONIA	W	11 NM
KINGS MOUNTAIN	W	20 NM
STANLEY	NW	12 NM
LINCOLNTON	NW	22 NM

Prepared by the National Ocean Survey
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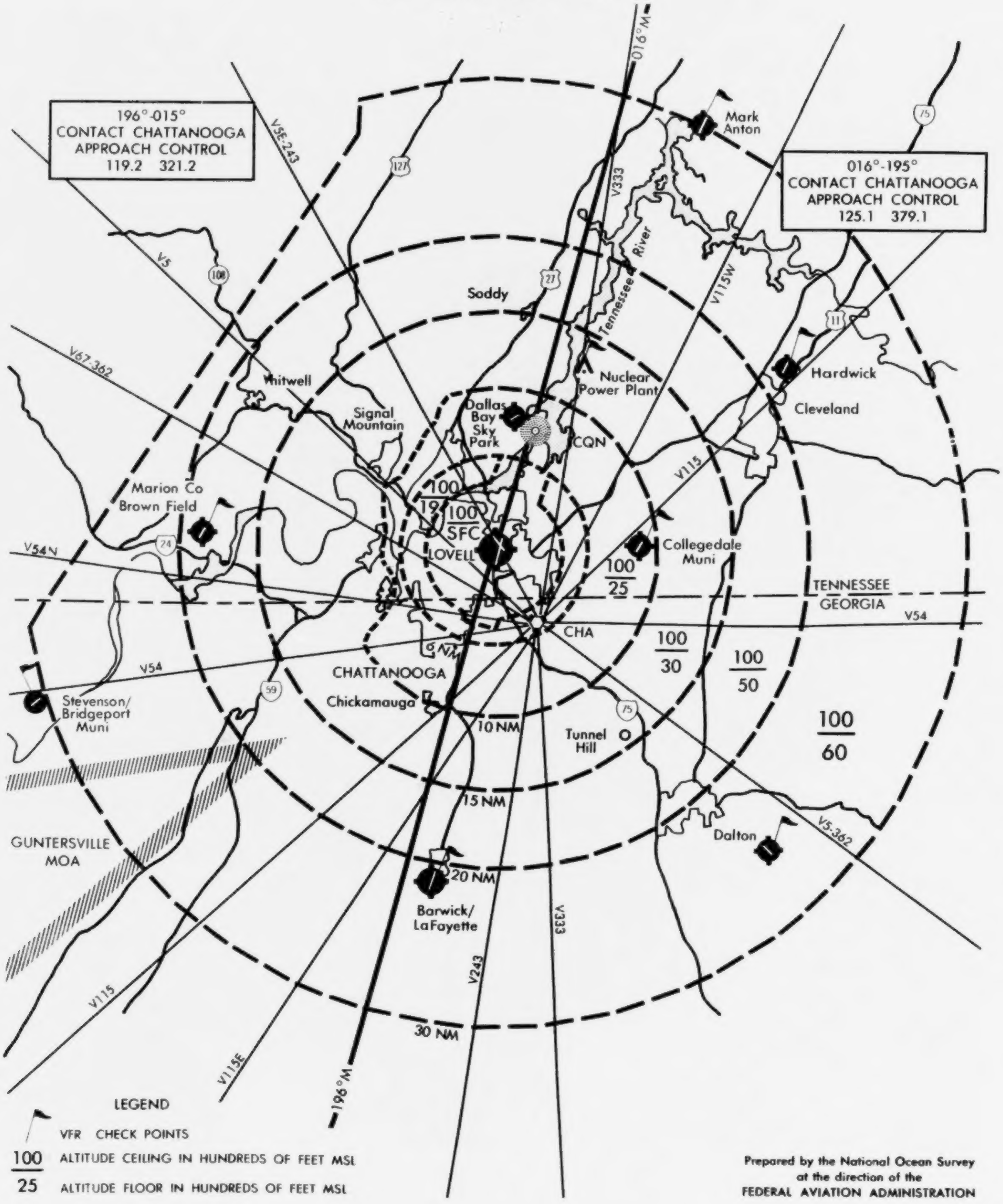
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHATTANOOGA, TENN.
LOVELL FIELD
FIELD ELEV 682' MSL


196°-015°
CONTACT CHATTANOOGA
APPROACH CONTROL
119.2 321.2
016°-195°
CONTACT CHATTANOOGA
APPROACH CONTROL
125.1 379.1
016°M
196°M
Mark Anton
V333
V5E-243
V5
V67-362
V54N
V54
V115
V115W
V115E
V243
V5-362
127
108
27
11
75
24
59
Tennessee River
Soddy
Whitwell
Signal Mountain
Dallas Bay Sky Park
Nuclear Power Plant
CQN
Hardwick
Cleveland
Marion Co Brown Field
Collegedale Muni
LOVELL
100
SFC
100
19
100
25
100
30
100
50
100
60
TENNESSEE
GEORGIA
CHA
CHATTANOOGA
Chickamauga
5 NM
10 NM
15 NM
20 NM
30 NM
Tunnel Hill
Dalton
Stevenson/ Bridgeport Muni
GUNTERSVILLE MOA
Barwick/ LaFayette

LEGEND

VFR CHECK POINTS

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL

25 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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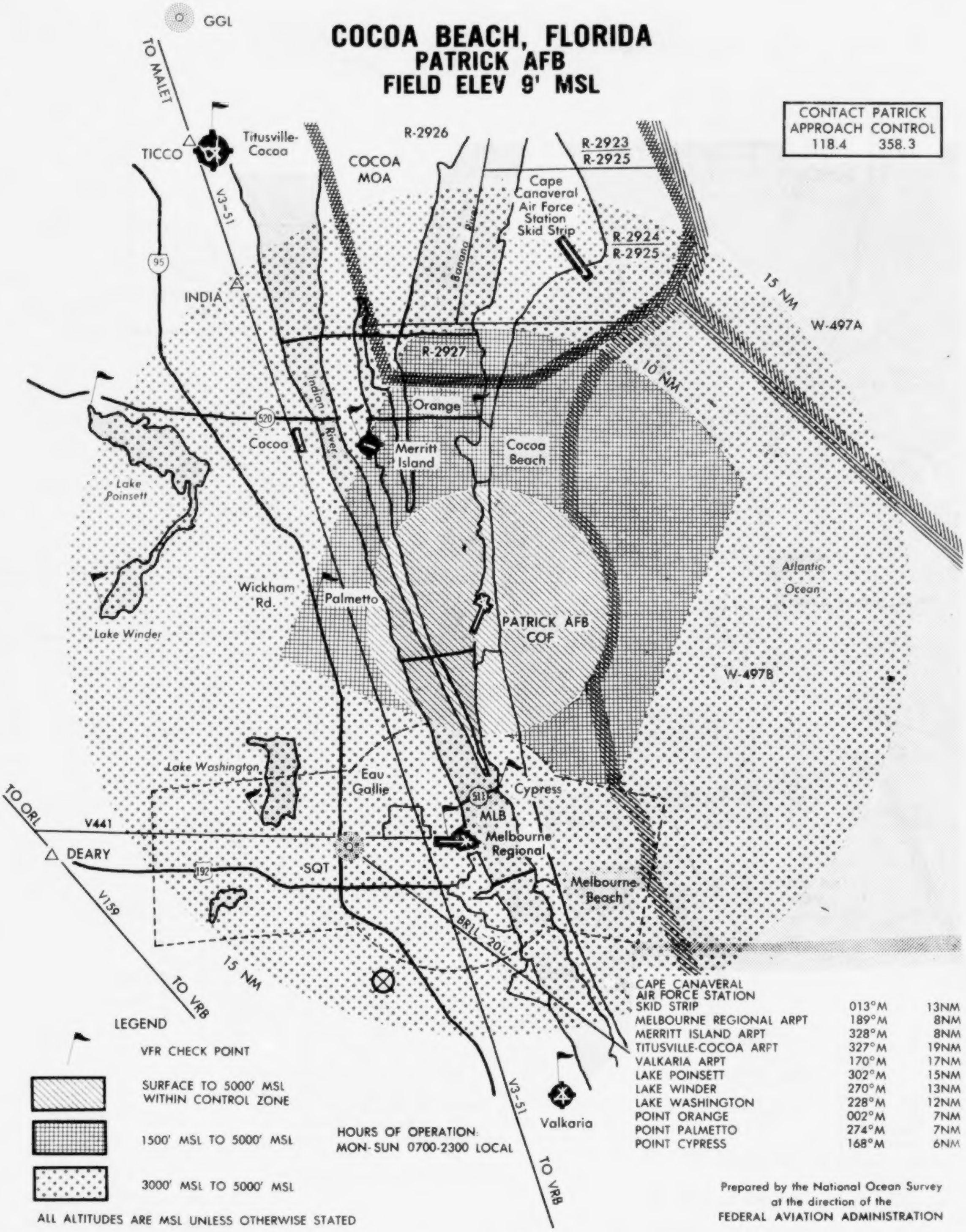
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, FLORIDA
PATRICK AFB
FIELD ELEV 9' MSL

CONTACT PATRICK APPROACH CONTROL	
118.4	358.3


GGL
TO MALET
TICCO
Titusville-Cocoa
V3-51
95
INDIA
R-2926
COCOA MOA
R-2923
R-2925
Cape Canaveral Air Force Station Skid Strip
R-2924
R-2925
Banana River
15 NM
W-497A
R-2927
10 NM
Indian River
520
Orange
Cocoa
Merritt Island
Cocoa Beach
Lake Poinsett
Wickham Rd.
Palmetto
Lake Winder
PATRICK AFB COF
Atlantic Ocean
W-497B
Lake Washington
Eau Gallie
511
Cypress
MLB
TO ORL
V441
DEARY
Melbourne Regional
192
SQT
Melbourne Beach
V159
BR11-20L
15 NM
TO VRB
V3-51
Valkaria
TO VRB

CAPE CANAVERAL AIR FORCE STATION SKID STRIP	013°M	13NM
MELBOURNE REGIONAL ARPT	189°M	8NM
MERRITT ISLAND ARPT	328°M	8NM
TITUSVILLE-COCOA ARPT	327°M	19NM
VALKARIA ARPT	170°M	17NM
LAKE POINSETT	302°M	15NM
LAKE WINDER	270°M	13NM
LAKE WASHINGTON	228°M	12NM
POINT ORANGE	002°M	7NM
POINT PALMETTO	274°M	7NM
POINT CYPRESS	168°M	6NM

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 5000' MSL WITHIN CONTROL ZONE
▦	1500' MSL TO 5000' MSL
⁘	3000' MSL TO 5000' MSL

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

HOURS OF OPERATION:
MON-SUN 0700-2300 LOCAL

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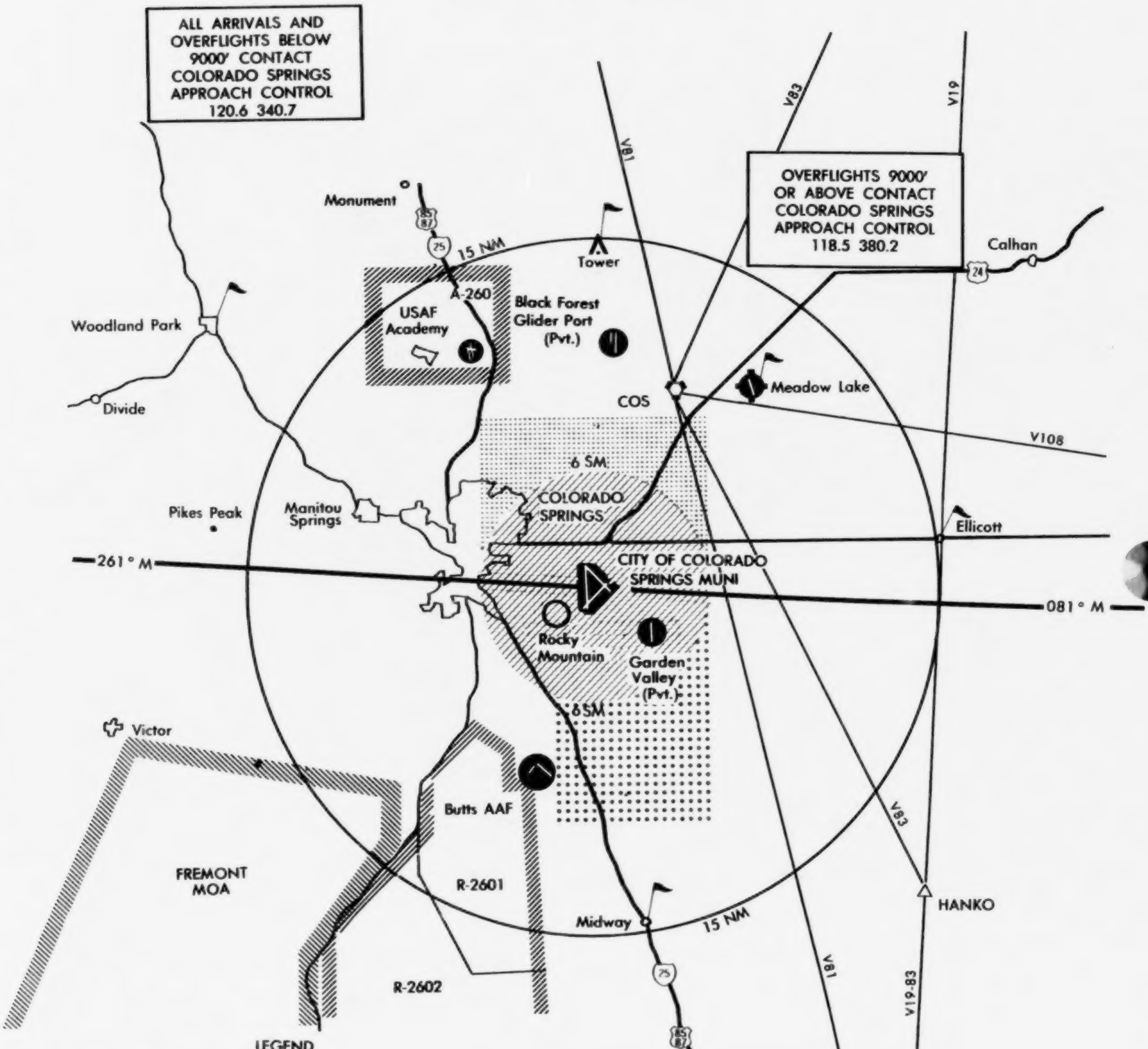
22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO
FIELD ELEV. 6172′ MSL


V83
V19
V81
Monument
85
87
25
15 NM
Tower
Calhan
24
A-260
USAF Academy
Black Forest Glider Port (Pvt.)
Woodland Park
Divide
COS
Meadow Lake
V108
6 SM
COLORADO SPRINGS
Pikes Peak
Manitou Springs
Ellicott
261° M
CITY OF COLORADO SPRINGS MUNI
081° M
Rocky Mountain
Garden Valley (Pvt.)
6 SM
Victor
Butts AAF
V83
FREMONT MOA
R-2601
HANKO
Midway
15 NM
V81
25
R-2602
V19-83
85
87

ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL
120.6 340.7

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL
118.5 380.2

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL
124.0 362.3

LEGEND

VFR CHECK POINT

▨ SURFACE TO 12,000′ MSL

░ 7100′ MSL TO 12,000′ MSL

░ 7600′ MSL TO 12,000′ MSL

*ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

9 AUG 1979

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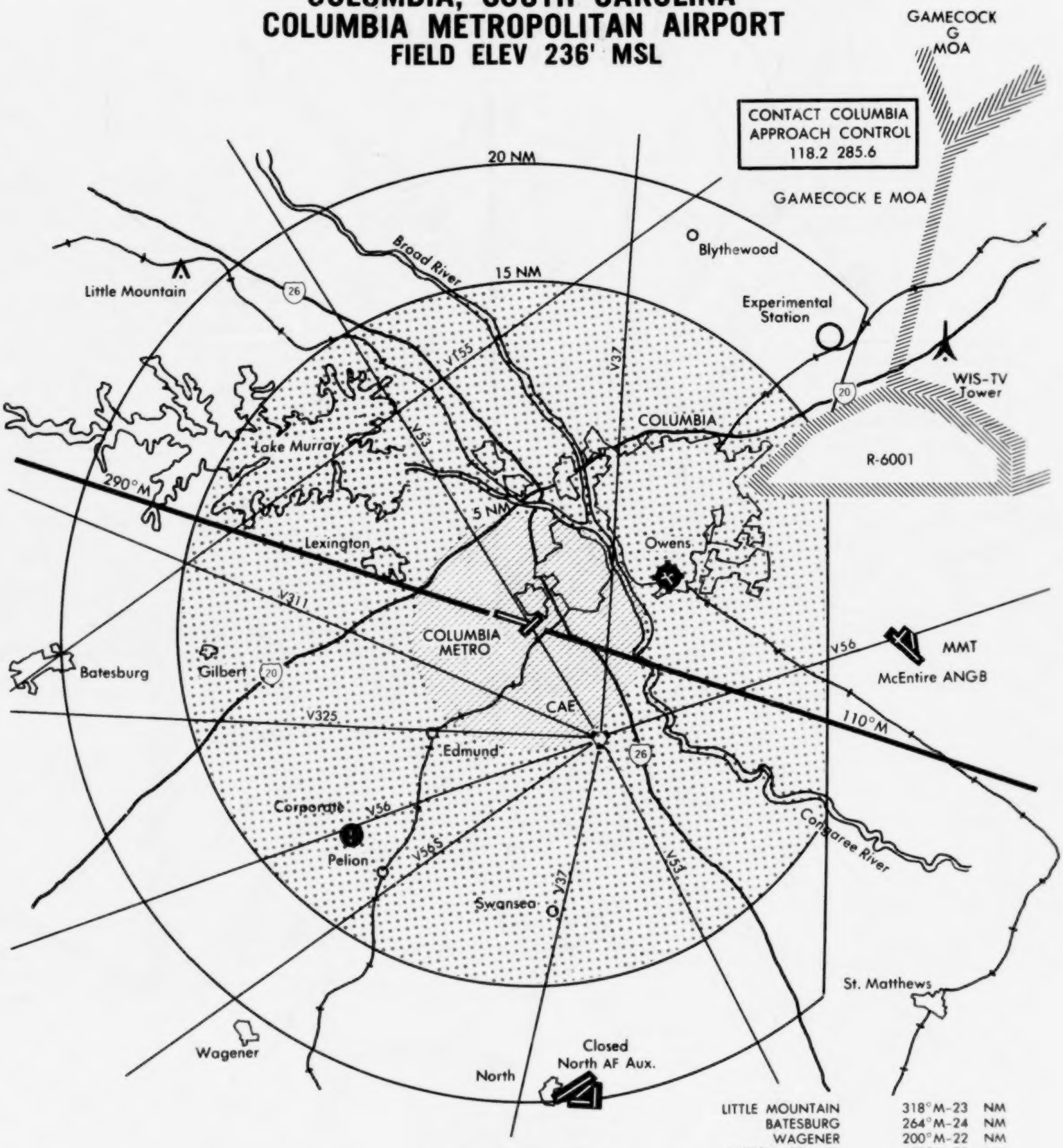
COLUMBIA, SOUTH CAROLINA
COLUMBIA METROPOLITAN AIRPORT
FIELD ELEV 236' MSL


GAMECOCK G MOA
20 NM
GAMECOCK E MOA
Blythewood
Broad River
15 NM
Little Mountain
26
Experimental Station
V155
V37
20
WIS-TV Tower
COLUMBIA
R-6001
Lake Murray
V53
290°M
5 NM
Lexington
Owens
V311
COLUMBIA METRO
V56
MMT
McEntire ANGB
Batesburg
Gilbert
20
CAE
V325
110°M
Edmund
26
Corporate
V56
Pelion
V56S
V53
Congaree River
Swansea
V37
St. Matthews
Closed North AF Aux.
Wagener
North

CONTACT COLUMBIA
APPROACH CONTROL
118.2 285.6

CONTACT COLUMBIA
APPROACH CONTROL
124.15 338.2

LITTLE MOUNTAIN	318°M-23 NM
BATESBURG	264°M-24 NM
WAGENER	200°M-22 NM
NORTH AFB AUX.	180°M-21 NM
ST. MATTHEWS	130°M-28 NM
McENTIRE ANGB	095°M-17 NM
WIS TV	060°M-21.3 NM
BLYTHEWOOD	010°M-20 NM

LEGEND

▨	SURFACE TO 6000 MSL
░	2000 TO 6000 MSL

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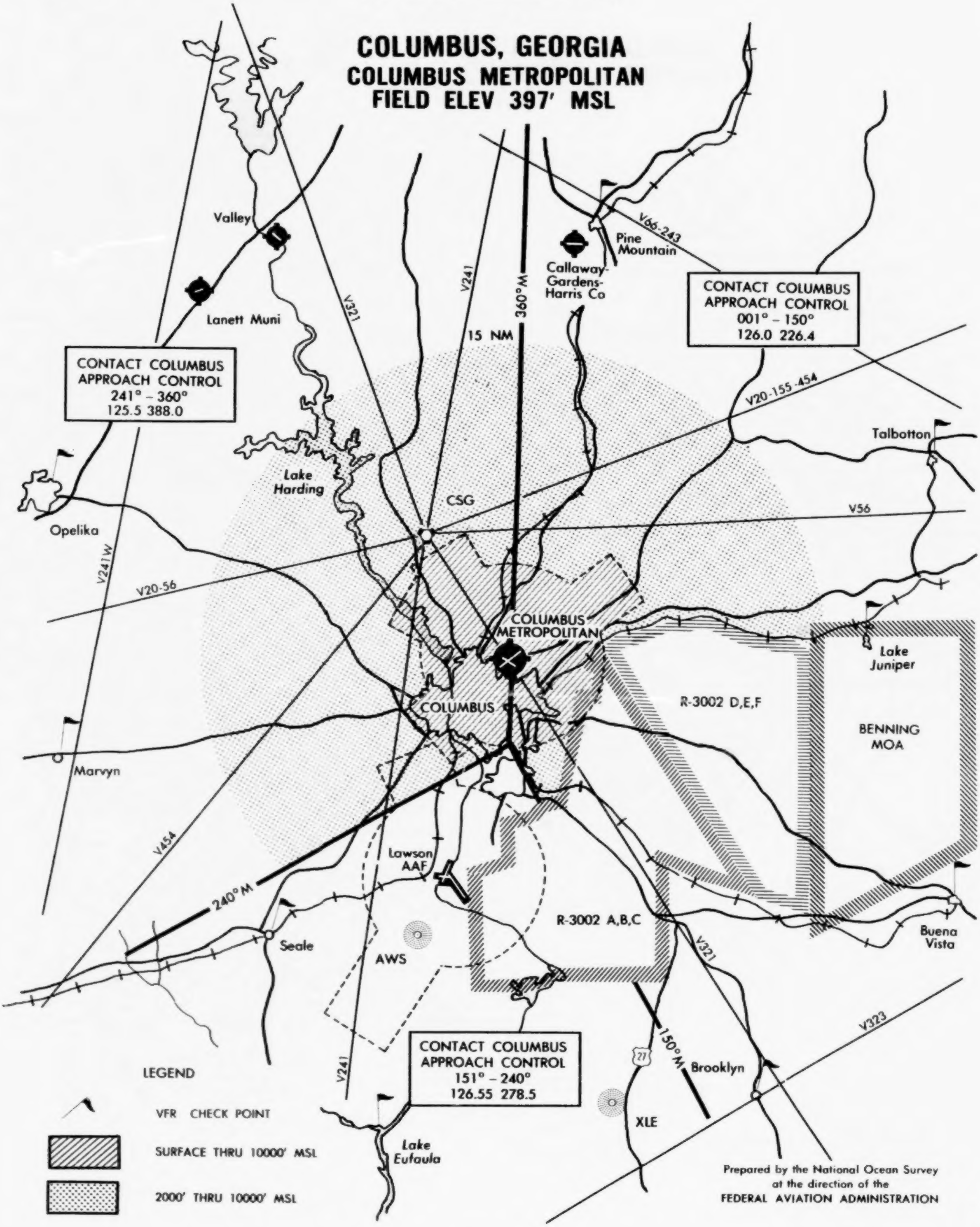
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS, GEORGIA
COLUMBUS METROPOLITAN
FIELD ELEV 397′ MSL


Valley
Lanett Muni
V321
V241
360°M
15 NM
Callaway-Gardens-Harris Co
Pine Mountain
V66-243
CONTACT COLUMBUS APPROACH CONTROL 001° – 150° 126.0 226.4
CONTACT COLUMBUS APPROACH CONTROL 241° – 360° 125.5 388.0
V20-155-454
Talbotton
Lake Harding
CSG
V56
Opelika
V241W
V20-56
COLUMBUS METROPOLITAN
Lake Juniper
COLUMBUS
R-3002 D,E,F
BENNING MOA
Marvyn
V454
Lawson AAF
240°M
Seale
AWS
R-3002 A,B,C
V321
Buena Vista
V323
150°M
27
Brooklyn
XLE
V241
CONTACT COLUMBUS APPROACH CONTROL 151° – 240° 126.55 278.5
Lake Eufaula
LEGEND
VFR CHECK POINT
SURFACE THRU 10000′ MSL
2000′ THRU 10000′ MSL

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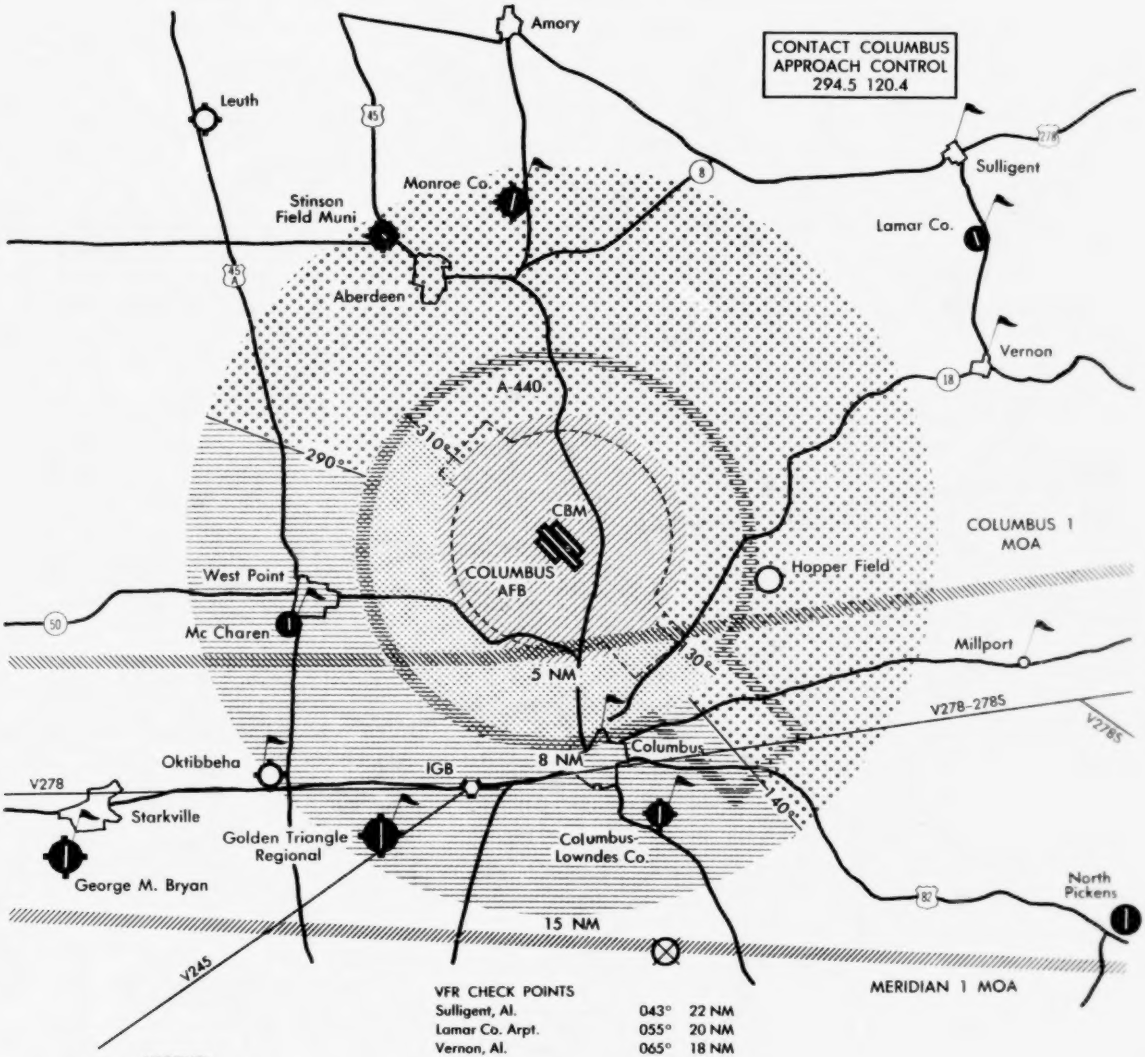
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI
FIELD ELEV 219′ MSL


CONTACT COLUMBUS
APPROACH CONTROL
294.5 120.4
Amory
Leuth
45
Sulligent
278
8
Monroe Co.
Stinson
Field Muni
Lamar Co.
45 A
Aberdeen
Vernon
18
A-440
310°
290°
CBM
COLUMBUS 1
MOA
COLUMBUS
AFB
Hopper Field
West Point
50
Mc Charen
Millport
30°
5 NM
V278-278S
V278S
Columbus
Oktibbeha
IGB
8 NM
V278
140°
Starkville
Golden Triangle
Regional
Columbus-
Lowndes Co.
George M. Bryan
82
North
Pickens
15 NM
V245
MERIDIAN 1 MOA

LEGEND

⚑	VFR CHECK POINTS
▨	SURFACE TO 7000′ MSL
░	1200′ MSL TO 7000′ MSL
▒	1800′ MSL TO 7000′ MSL
▤	3000′ MSL TO 7000′ MSL

VFR CHECK POINTS		
Sulligent, Al.	043°	22 NM
Lamar Co. Arpt.	055°	20 NM
Vernon, Al.	065°	18 NM
Millport, Al.	100°	19 NM
Columbus-Lowndes Co. Arpt.	158°	11 NM
Columbus, Ms.	170°	10 NM
Golden Triangle Reg. Arpt.	210°	12 NM
George M. Bryan Arpt.	235°	24 NM
Mc Charen Arpt.	250°	13 NM
Monroe Co. Arpt.	350°	15 NM
Oktibbeha Arpt.	228°	15 NM

VISUAL HOLDING POINTS		
Southwest of Vernon, Al.	065°	18 NM
West of Millport, Al.	100°	18 NM
South of the City of Columbus	170°	10 NM
West of West Point	260°	13 NM
West of Aberdeen	330°	13 NM

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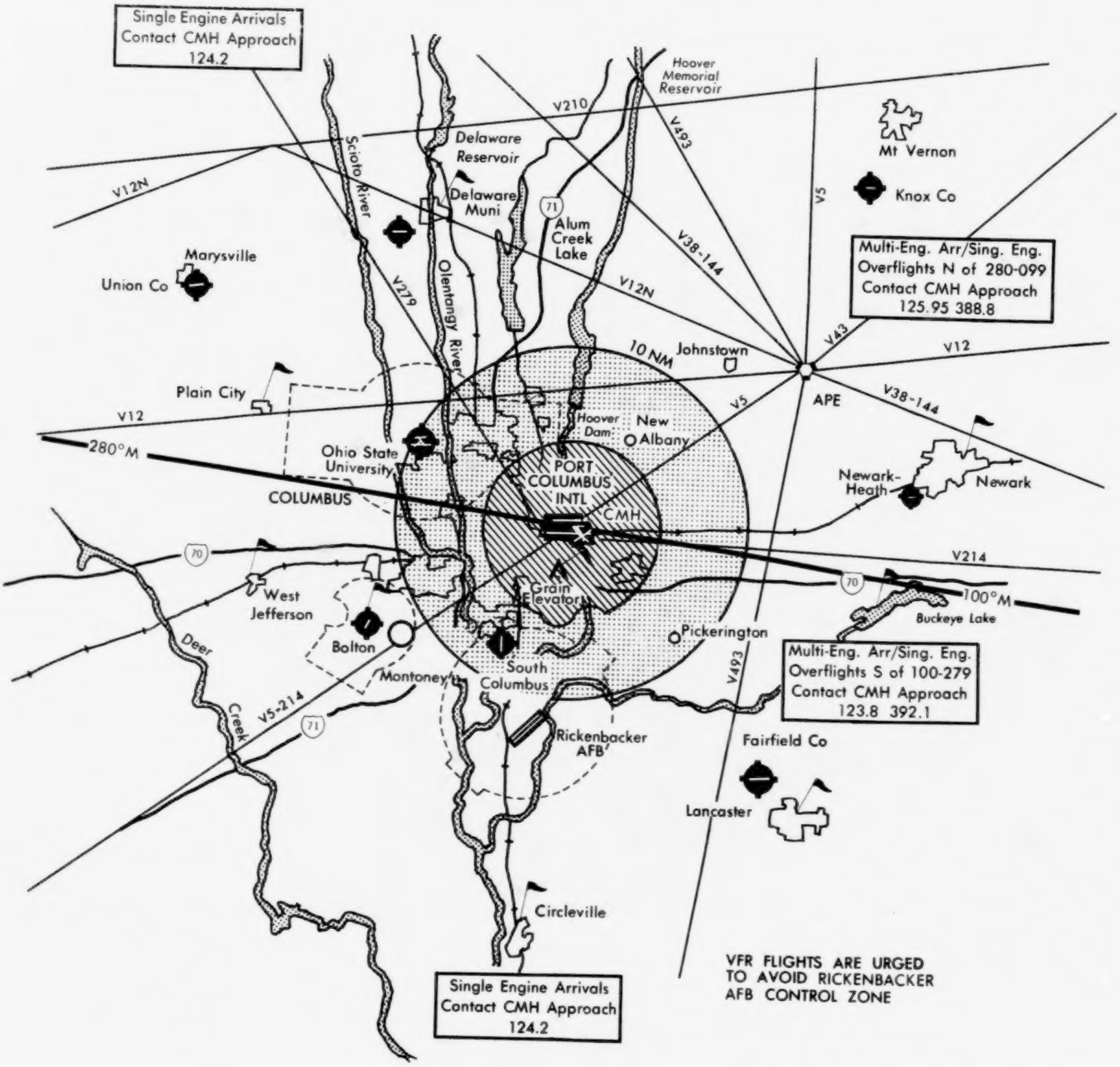
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS, OHIO, PORT COLUMBUS INTL AIRPORT

FIELD ELEV. 816′ MSL


Single Engine Arrivals
Contact CMH Approach
124.2
Hoover
Memorial
Reservoir
V210
V493
Mt Vernon
Delaware
Reservoir
Scioto River
V12N
Delaware
Muni
71
Alum
Creek
Lake
V5
Knox Co
Marysville
Union Co
V279
Olentangy River
V38-144
V12N
Multi-Eng. Arr/Sing. Eng.
Overflights N of 280-099
Contact CMH Approach
125.95 388.8
10 NM
Johnstown
V43
V12
Plain City
V12
APE
V38-144
V5
Hoover
Dam
New
Albany
280°M
Ohio State
University
PORT
COLUMBUS
INTL
Newark-
Heath
Newark
COLUMBUS
CMH
70
V214
Grain
Elevator
70
100°M
West
Jefferson
Buckeye Lake
Pickerington
Bolton
Deer
South
Columbus
V493
Multi-Eng. Arr/Sing. Eng.
Overflights S of 100-279
Contact CMH Approach
123.8 392.1
Montoney
V5-214
Creek
71
Rickenbacker
AFB
Fairfield Co
Lancaster
Circleville
Single Engine Arrivals
Contact CMH Approach
124.2

VFR FLIGHTS ARE URGED
TO AVOID RICKENBACKER
AFB CONTROL ZONE

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 6500 MSL WITHIN AIRPORT CONTROL ZONE
▒	3500 TO 6500 MSL

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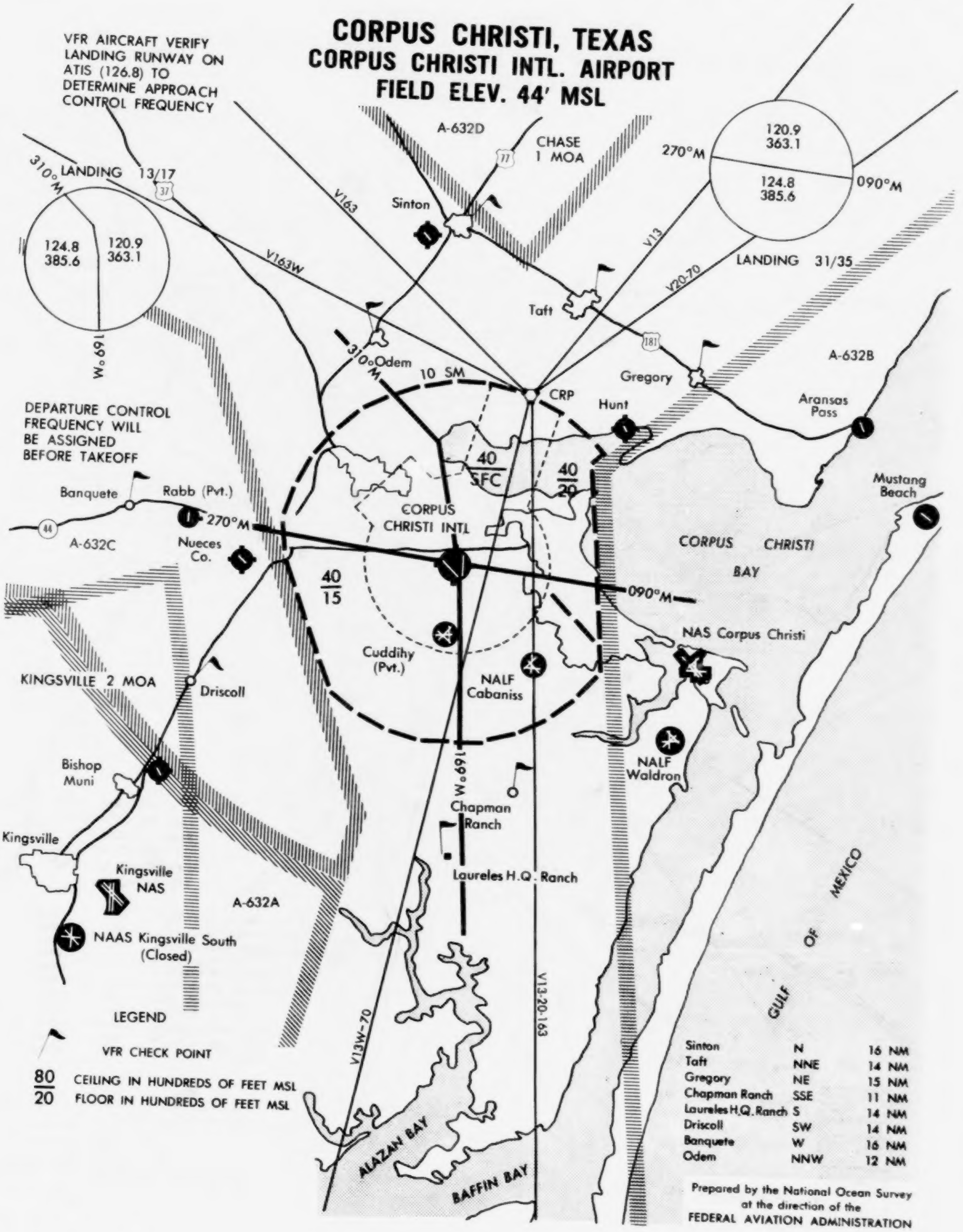
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CORPUS CHRISTI, TEXAS
CORPUS CHRISTI INTL. AIRPORT
FIELD ELEV. 44′ MSL


VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (126.8) TO DETERMINE APPROACH CONTROL FREQUENCY
LANDING 13/17
310°M
124.8
385.6
120.9
363.1
169°M
A-632D
CHASE 1 MOA
77
37
V163
V163W
Sinton
270°M
120.9
363.1
124.8
385.6
090°M
LANDING 31/35
V13
V20-70
Taft
181
Gregory
A-632B
Aransas Pass
310°M
Odem
10 SM
CRP
Hunt
Mustang Beach
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
40
SFC
40
20
Banquete
Rabb (Pvt.)
270°M
44
A-632C
Nueces Co.
CORPUS CHRISTI INTL
CORPUS CHRISTI BAY
40
15
090°M
NAS Corpus Christi
Cuddihy (Pvt.)
NALF Cabaniss
KINGSVILLE 2 MOA
Driscoll
NALF Waldron
Bishop Muni
169°M
Chapman Ranch
Kingsville
Kingsville NAS
Laureles H.Q. Ranch
A-632A
NAAS Kingsville South (Closed)
GULF OF MEXICO
V13W-70
V13-20-163
ALAZAN BAY
BAFFIN BAY

LEGEND

VFR CHECK POINT

80 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

Sinton	N	16 NM
Taft	NNE	14 NM
Gregory	NE	15 NM
Chapman Ranch	SSE	11 NM
Laureles H.Q. Ranch	S	14 NM
Driscoll	SW	14 NM
Banquete	W	16 NM
Odem	NNW	12 NM

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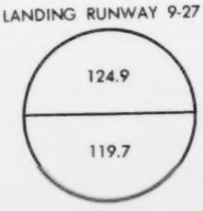
29 NOV 1979

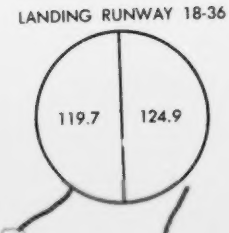
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

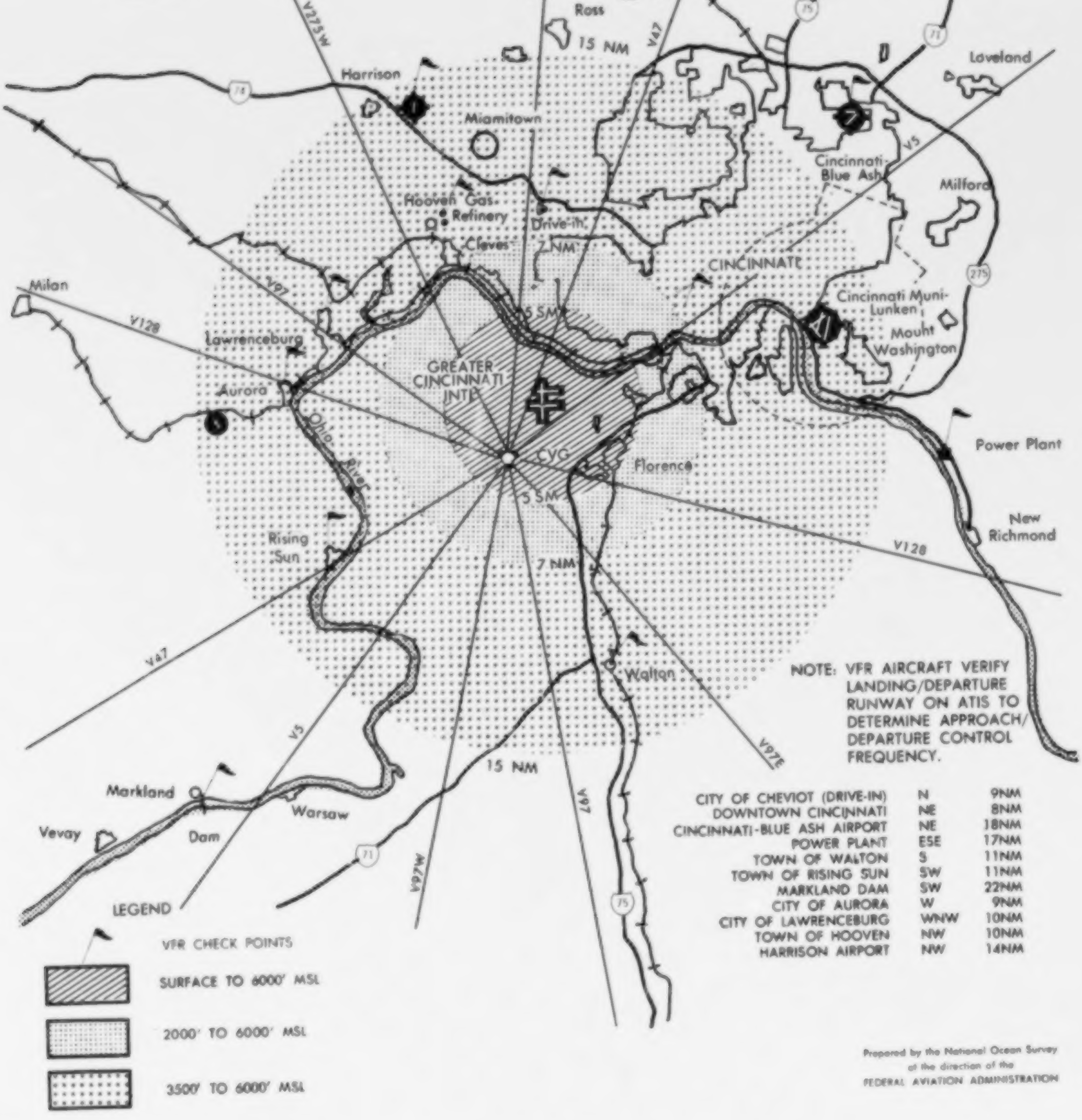
COVINGTON, KENTUCKY
GREATER CINCINNATI AIRPORT
FIELD ELEV. 891′ MSL
ATIS 117.3

LANDING RUNWAY 9-27



LANDING RUNWAY 18-36




Hamilton
V275
V53W
Ross
15 NM
V47
Loveland
Harrison
Miamitown
Cincinnati-Blue Ash
V5
Milford
Hooven Gas Refinery
Drive-In
Cleves
7 NM
CINCINNATI
Milan
V97
V128
Lawrenceburg
5 SM
Cincinnati Muni-Lunken
Mount Washington
GREATER CINCINNATI INTL
Aurora
Ohio River
CVG
Florence
Power Plant
5 SM
Rising Sun
New Richmond
V128
7 NM
V47
Walton
V5
V97E
15 NM
V97
Markland
Dam
Warsaw
Vevay
V97W
71
75
275

NOTE: VFR AIRCRAFT VERIFY LANDING/DEPARTURE RUNWAY ON ATIS TO DETERMINE APPROACH/DEPARTURE CONTROL FREQUENCY.

CITY OF CHEVIOT (DRIVE-IN)	N	9NM
DOWNTOWN CINCINNATI	NE	8NM
CINCINNATI-BLUE ASH AIRPORT	NE	18NM
POWER PLANT	ESE	17NM
TOWN OF WALTON	S	11NM
TOWN OF RISING SUN	SW	11NM
MARKLAND DAM	SW	22NM
CITY OF AURORA	W	9NM
CITY OF LAWRENCEBURG	WNW	10NM
TOWN OF HOOVEN	NW	10NM
HARRISON AIRPORT	NW	14NM

LEGEND

- ⚑ VFR CHECK POINTS
- ▨ SURFACE TO 6000′ MSL
- ▒ 2000′ TO 6000′ MSL
- ░ 3500′ TO 6000′ MSL

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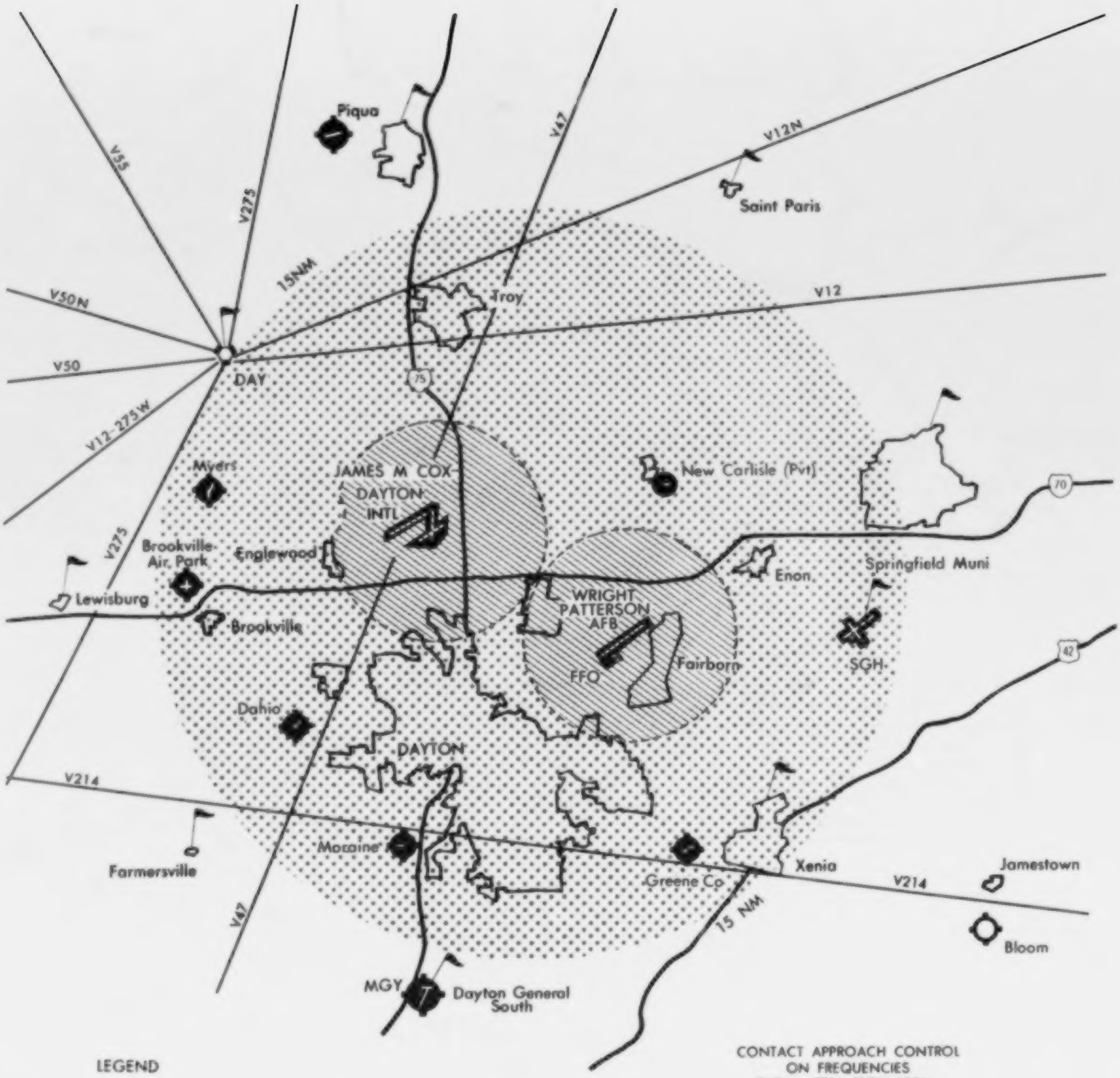
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DAYTON, OHIO JAMES M. COX DAYTON INTERNATIONAL AND WRIGHT PATTERSON AFB

FIELD ELEV 1008' MSL



Piqua
V55
V275
V47
V12N
Saint Paris
15NM
Troy
V50N
V12
V50
DAY
75
V12-275W
Myers
JAMES M COX
DAYTON
INTL
New Carlisle (Pvt)
70
Brookville
Air Park
Englewood
Enon
Springfield Muni
V275
Lewisburg
WRIGHT
PATTERSON
AFB
Brookville
FFO
Fairborn
SGH
42
Dahio
DAYTON
V214
Farmersville
Moraine
Greene Co
Xenia
Jamestown
V214
15 NM
V47
Bloom
MGY
Dayton General
South

CONTACT APPROACH CONTROL
ON FREQUENCIES
127.65 (070° THRU 179°)
118.0 (180° THRU 069°)

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL
WITHIN AIRPORT CONTROL ZONE

⠿ 3000' MSL TO 6000' MSL

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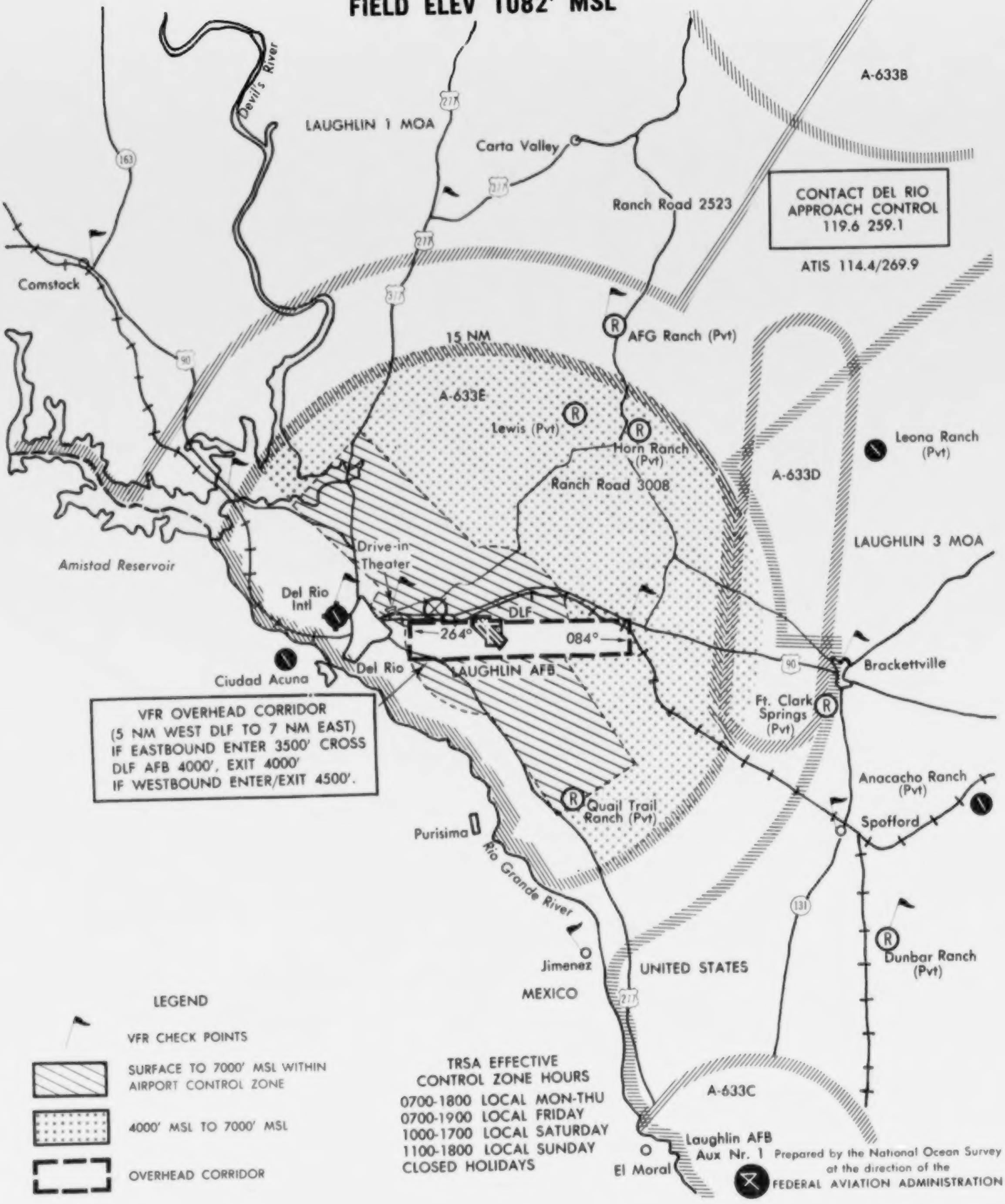
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DEL RIO, TEXAS
LAUGHLIN AFB
FIELD ELEV 1082' MSL


Devil's River
LAUGHLIN 1 MOA
277
163
Carta Valley
277
277
377
Ranch Road 2523
A-633B
Comstock
90
15 NM
AFG Ranch (Pvt)
A-633E
Lewis (Pvt)
Horn Ranch (Pvt)
Leona Ranch (Pvt)
Ranch Road 3008
A-633D
LAUGHLIN 3 MOA
Amistad Reservoir
Drive-in Theater
Del Rio Intl
DLF
264°
084°
LAUGHLIN AFB
Del Rio
Ciudad Acuna
90
Brackettville
Ft. Clark Springs (Pvt)
Anacacho Ranch (Pvt)
Quail Trail Ranch (Pvt)
Spofford
Purisima
Rio Grande River
131
Dunbar Ranch (Pvt)
Jimenez
UNITED STATES
MEXICO
277
A-633C
Laughlin AFB Aux Nr. 1
El Moral

CONTACT DEL RIO
APPROACH CONTROL
119.6 259.1

ATIS 114.4/269.9

VFR OVERHEAD CORRIDOR
(5 NM WEST DLF TO 7 NM EAST)
IF EASTBOUND ENTER 3500' CROSS
DLF AFB 4000', EXIT 4000'
IF WESTBOUND ENTER/EXIT 4500'.

LEGEND

VFR CHECK POINTS

▨ SURFACE TO 7000' MSL WITHIN AIRPORT CONTROL ZONE

⬚ 4000' MSL TO 7000' MSL

┅ OVERHEAD CORRIDOR

TRSA EFFECTIVE
CONTROL ZONE HOURS
0700-1800 LOCAL MON-THU
0700-1900 LOCAL FRIDAY
1000-1700 LOCAL SATURDAY
1100-1800 LOCAL SUNDAY
CLOSED HOLIDAYS

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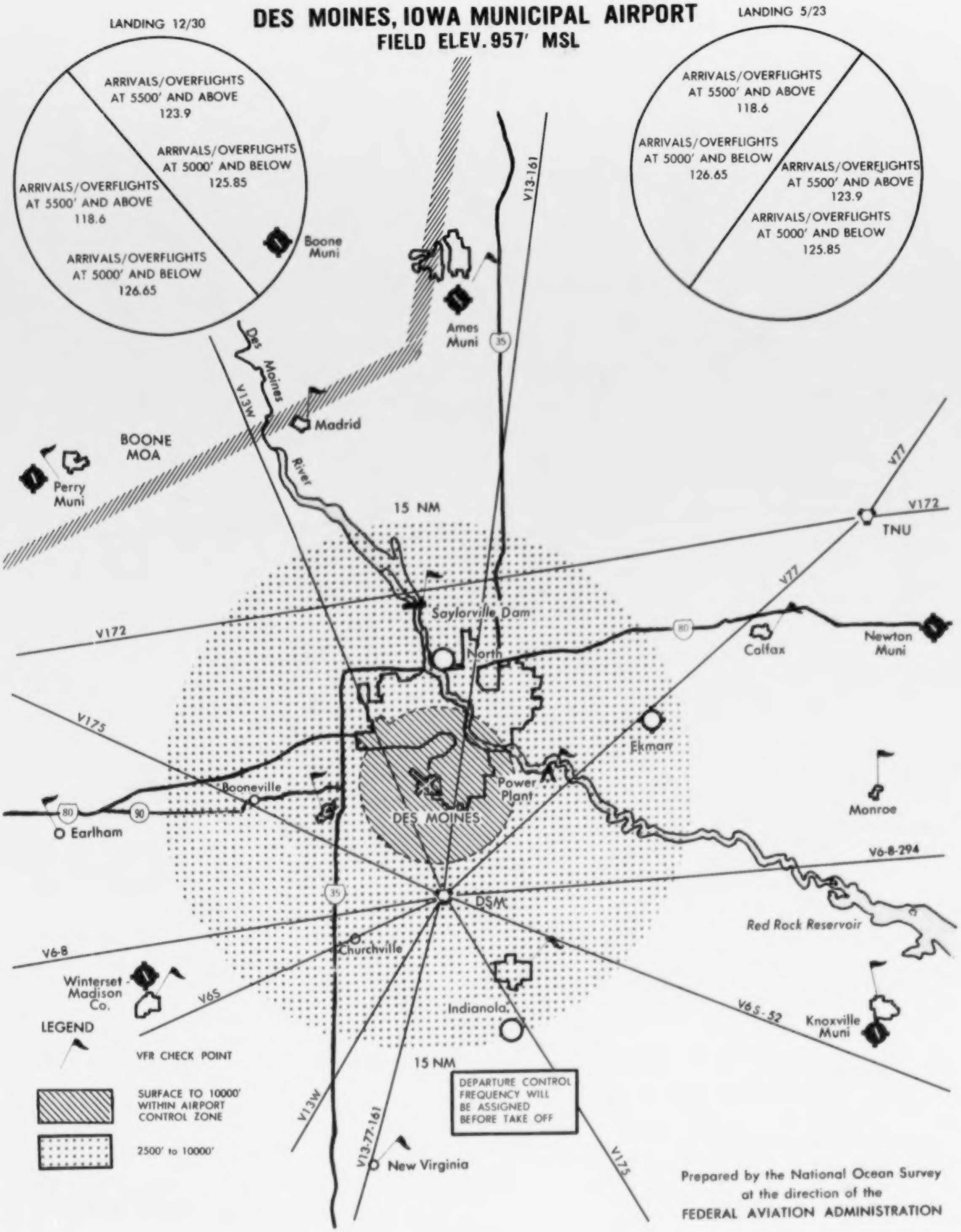
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DES MOINES, IOWA MUNICIPAL AIRPORT
FIELD ELEV. 957' MSL


LANDING 12/30
ARRIVALS/OVERFLIGHTS AT 5500' AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000' AND BELOW 125.85
ARRIVALS/OVERFLIGHTS AT 5500' AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000' AND BELOW 126.65
LANDING 5/23
ARRIVALS/OVERFLIGHTS AT 5500' AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000' AND BELOW 126.65
ARRIVALS/OVERFLIGHTS AT 5500' AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000' AND BELOW 125.85
Boone Muni
V13-161
Ames Muni
35
Des Moines River
V13W
Madrid
BOONE MOA
Perry Muni
15 NM
V77
V172
TNU
Saylorville Dam
V172
80
Colfax
Newton Muni
North
V175
Ekman
Power Plant
Booneville
80
90
Earlham
DES MOINES
Monroe
V6-8-294
35
DSM
Red Rock Reservoir
V6-8
Churchville
Winterset-Madison Co.
V65
V65-52
Indianola
Knoxville Muni
15 NM
V13W
V13-77-161
New Virginia
V175
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF
LEGEND
VFR CHECK POINT
SURFACE TO 10000' WITHIN AIRPORT CONTROL ZONE
2500' to 10000'

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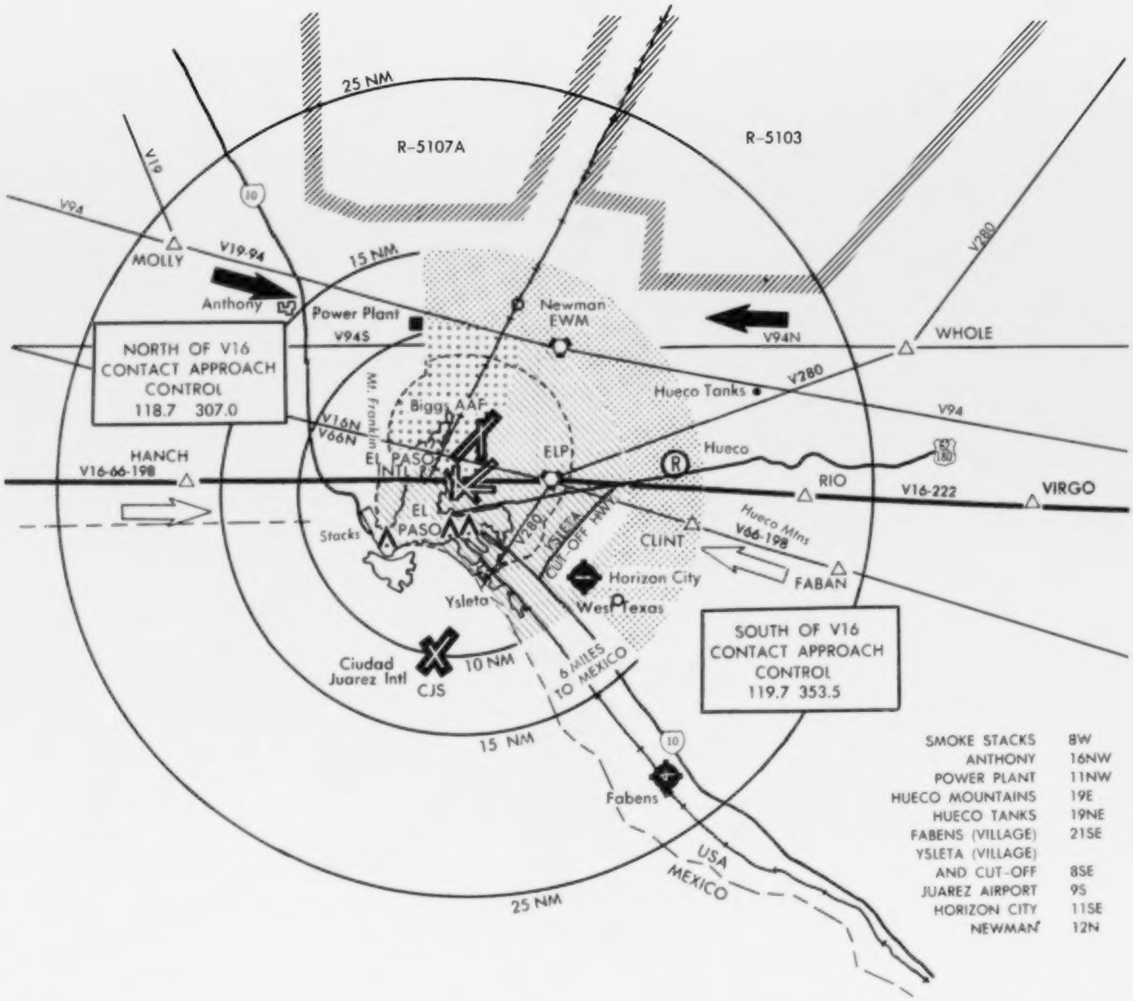
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

EL PASO, TEXAS, EL PASO INTL AIRPORT
FIELD ELEV. 3956′ MSL


25 NM
R-5107A
R-5103
V19
V94
10
MOLLY
V19-94
15 NM
Anthony
Power Plant
Newman
EWM
V94N
WHOLE
V280
V94S
NORTH OF V16
CONTACT APPROACH
CONTROL
118.7 307.0
Mt. Franklin
Biggs AAF
Hueco Tanks
V280
V94
V16N
V66N
EL PASO
INTL
ELP
R
Hueco
62
180
HANCH
V16-66-198
RIO
V16-222
VIRGO
EL
PASO
Stacks
V280
YSLETA
CUT-OFF HWY
CLINT
Hueco Mtns
V66-198
Horizon City
FABAN
West Texas
Ysleta
SOUTH OF V16
CONTACT APPROACH
CONTROL
119.7 353.5
Ciudad
Juarez Intl
CJS
10 NM
6 MILES
TO MEXICO
15 NM
10
Fabens
USA
MEXICO
25 NM

SMOKE STACKS	8W
ANTHONY	16NW
POWER PLANT	11NW
HUECO MOUNTAINS	19E
HUECO TANKS	19NE
FABENS (VILLAGE)	21SE
YSLETA (VILLAGE) AND CUT-OFF	8SE
JUAREZ AIRPORT	9S
HORIZON CITY	11SE
NEWMAN	12N

LEGEND

▨	6000′ TO 10,000′ MSL
▨	6500′ TO 10,000′ MSL
▨	SURFACE TO 10,000′ MSL
➡	SUGGESTED VFR ROUTES RUNWAYS 22, 26, 17, IN USE
⇦	SUGGESTED VFR ROUTES RUNWAYS 4, 8, 35, IN USE

29 NOV 1979

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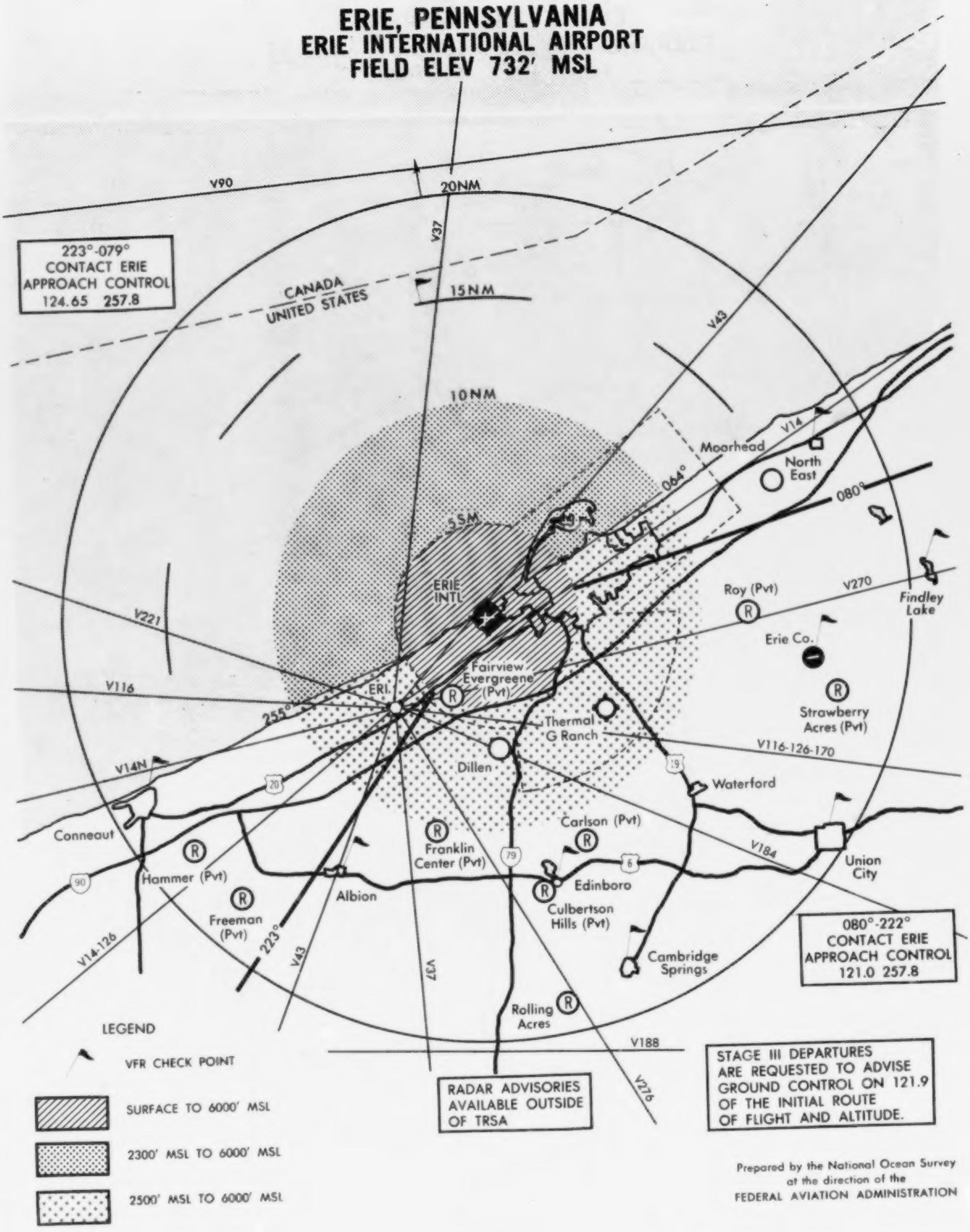
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ERIE, PENNSYLVANIA
ERIE INTERNATIONAL AIRPORT
FIELD ELEV 732′ MSL


V90
20NM
V37
CANADA
UNITED STATES
15NM
V43
10NM
5SM
064°
080°
Moorhead
North East
V14
ERIE INTL
V221
V116
ERI
255°
Fairview Evergreene (Pvt)
Thermal G Ranch
Roy (Pvt)
V270
Findley Lake
Erie Co.
Strawberry Acres (Pvt)
V116-126-170
Dillen
V14N
20
19
Waterford
Conneaut
Carlson (Pvt)
V184
Union City
Franklin Center (Pvt)
79
6
90
Hammer (Pvt)
Albion
Edinboro
Culbertson Hills (Pvt)
Freeman (Pvt)
223°
V14-126
V43
V37
Cambridge Springs
Rolling Acres
V188
V276

223°-079°
CONTACT ERIE
APPROACH CONTROL
124.65 257.8

080°-222°
CONTACT ERIE
APPROACH CONTROL
121.0 257.8

RADAR ADVISORIES
AVAILABLE OUTSIDE
OF TRSA

STAGE III DEPARTURES
ARE REQUESTED TO ADVISE
GROUND CONTROL ON 121.9
OF THE INITIAL ROUTE
OF FLIGHT AND ALTITUDE.

LEGEND

▸	VFR CHECK POINT
▨	SURFACE TO 6000′ MSL
▩	2300′ MSL TO 6000′ MSL
░	2500′ MSL TO 6000′ MSL

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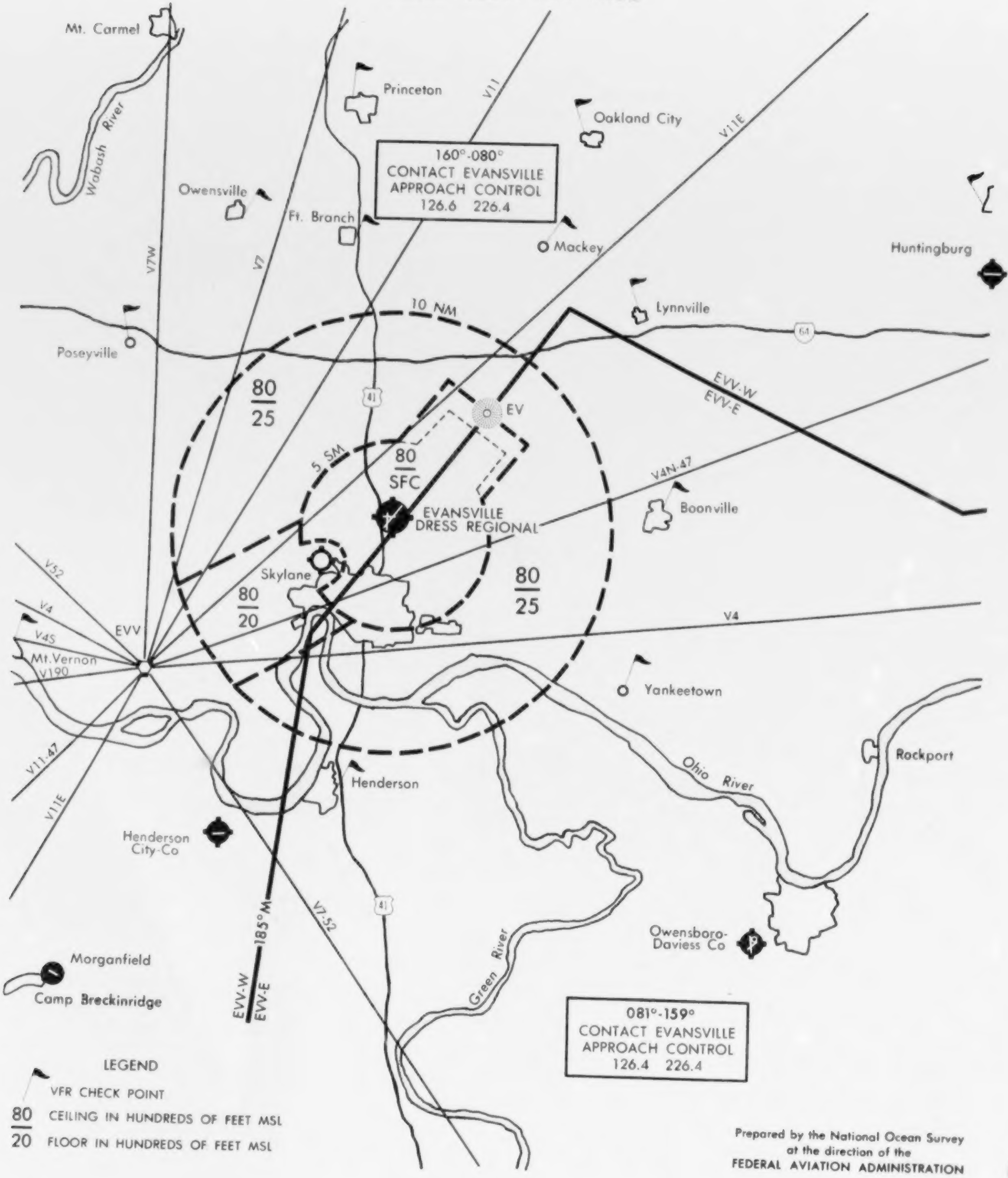
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

EVANSVILLE, INDIANA
EVANSVILLE DRESS REGIONAL AIRPORT
FIELD ELEV. 418' MSL


Mt. Carmel
Wabash River
Princeton
V11
Oakland City
V11E
160°-080°
CONTACT EVANSVILLE
APPROACH CONTROL
126.6 226.4
Owensville
Ft. Branch
Mackey
Huntingburg
V7W
V7
10 NM
Lynnville
64
Poseyville
80
25
41
EV
EVV-W
EVV-E
5 SM
80
SFC
V4N-47
EVANSVILLE
DRESS REGIONAL
Boonville
Skylane
80
20
80
25
V52
V4
V45
EVV
Mt.Vernon
V190
V4
Yankeetown
V11-47
Rockport
Ohio River
Henderson
V11E
Henderson
City-Co
41
V7-52
185°M
Owensboro-
Daviess Co
Green River
Morganfield
Camp Breckinridge
EVV-W
EVV-E
081°-159°
CONTACT EVANSVILLE
APPROACH CONTROL
126.4 226.4
LEGEND
VFR CHECK POINT
80 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

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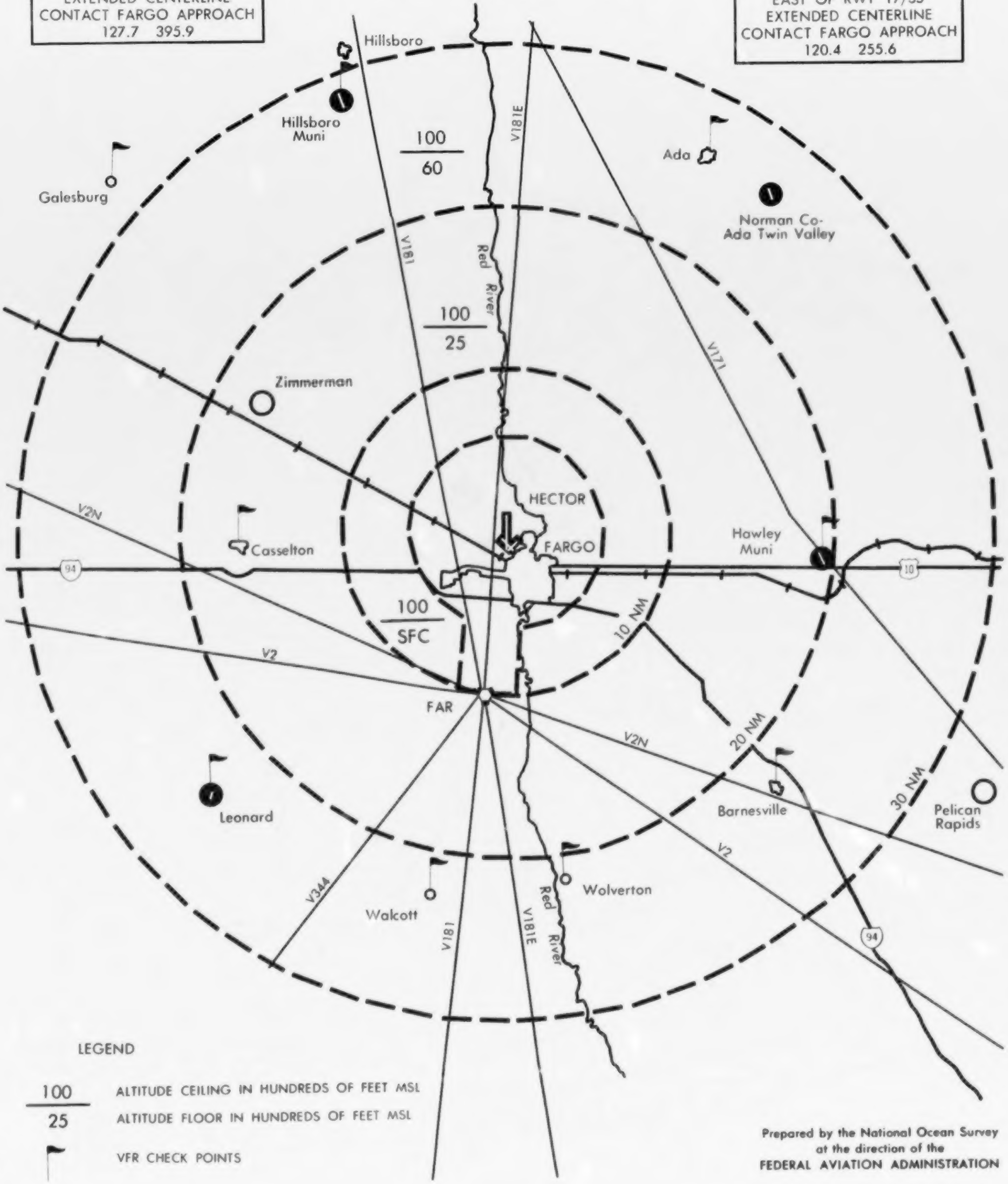
8 OCT 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FARGO, NORTH DAKOTA
HECTOR AIRPORT
FIELD ELEV 900' MSL

WEST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
127.7 395.9

EAST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
120.4 255.6


Hillsboro
Hillsboro Muni
100/60
V181E
Ada
Galesburg
Norman Co-Ada Twin Valley
V181
Red River
100/25
V171
Zimmerman
HECTOR
V2N
Casselton
FARGO
Hawley Muni
94
10
100/SFC
10 NM
V2
FAR
V2N
20 NM
Leonard
Barnesville
30 NM
Pelican Rapids
V2
V344
Walcott
Wolverton
V181
V181E
Red River
94

LEGEND

100	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
25	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL
🚩	VFR CHECK POINTS

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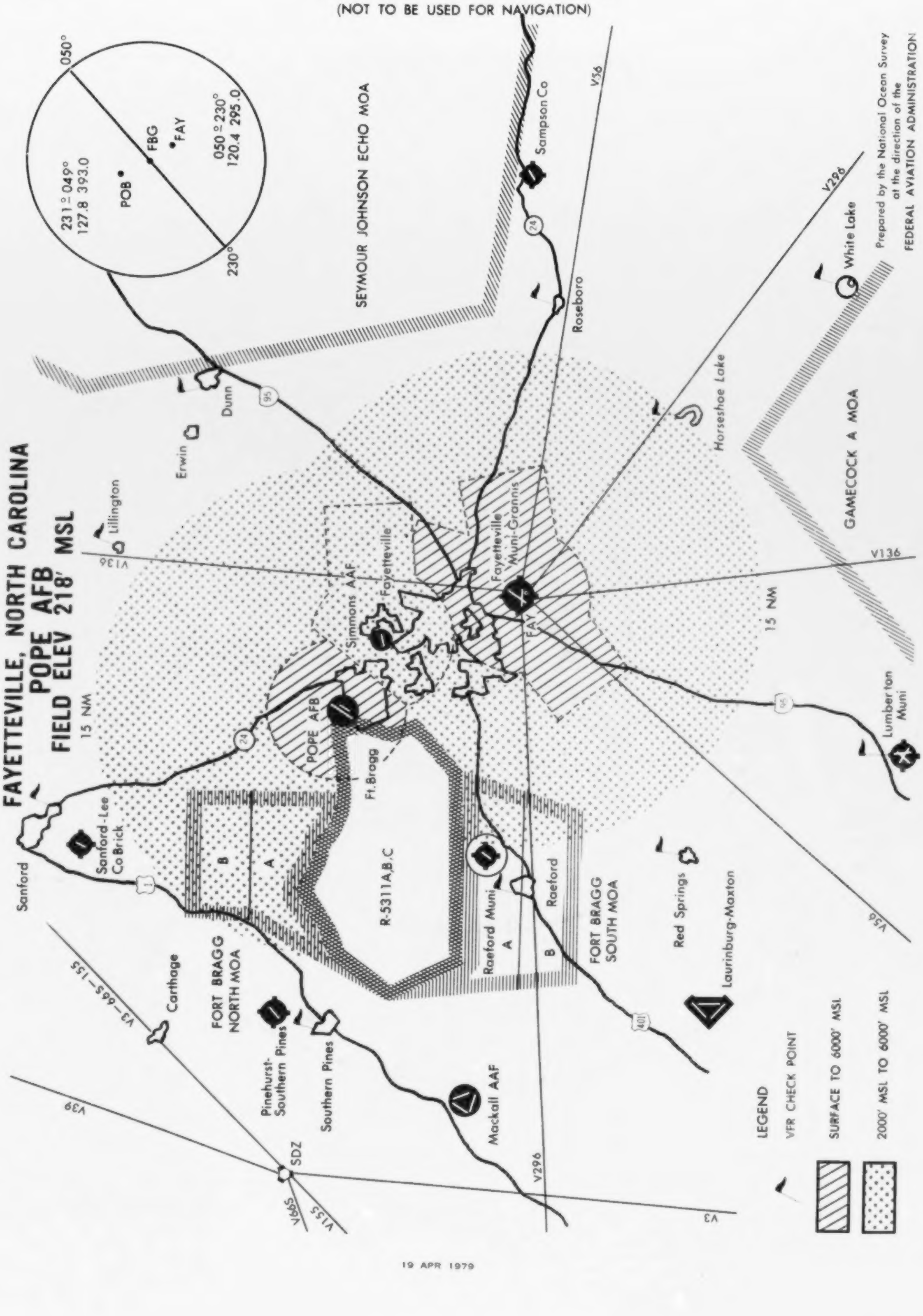
4 OCT 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



FAYETTEVILLE, NORTH CAROLINA
POPE AFB
FIELD ELEV 218' MSL

231°–049°
127.8 393.0
050°
230°
POB
FBG
FAY
050°–230°
120.4 295.0
SEYMOUR JOHNSON ECHO MOA
Sampson Co
V36
24
Roseboro
V296
White Lake
GAMECOCK A MOA
Horseshoe Lake
Dunn
95
Erwin
Lillington
V136
Simmons AAF
'Fayetteville'
Fayetteville Muni-Grannis
FAY
15 NM
15 NM
POPE AFB
Ft.Bragg
Lumberton Muni
Sanford
Sanford-Lee Co Brick
B
A
R-5311A,B,C
Raeford Muni
Raeford
A
B
FORT BRAGG SOUTH MOA
Red Springs
Laurinburg-Maxton
V56
FORT BRAGG NORTH MOA
Carthage
V3-66S-155
Pinehurst-Southern Pines
Southern Pines
Mackall AAF
401
1
V39
SDZ
V66S
V155
V3
V296
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL

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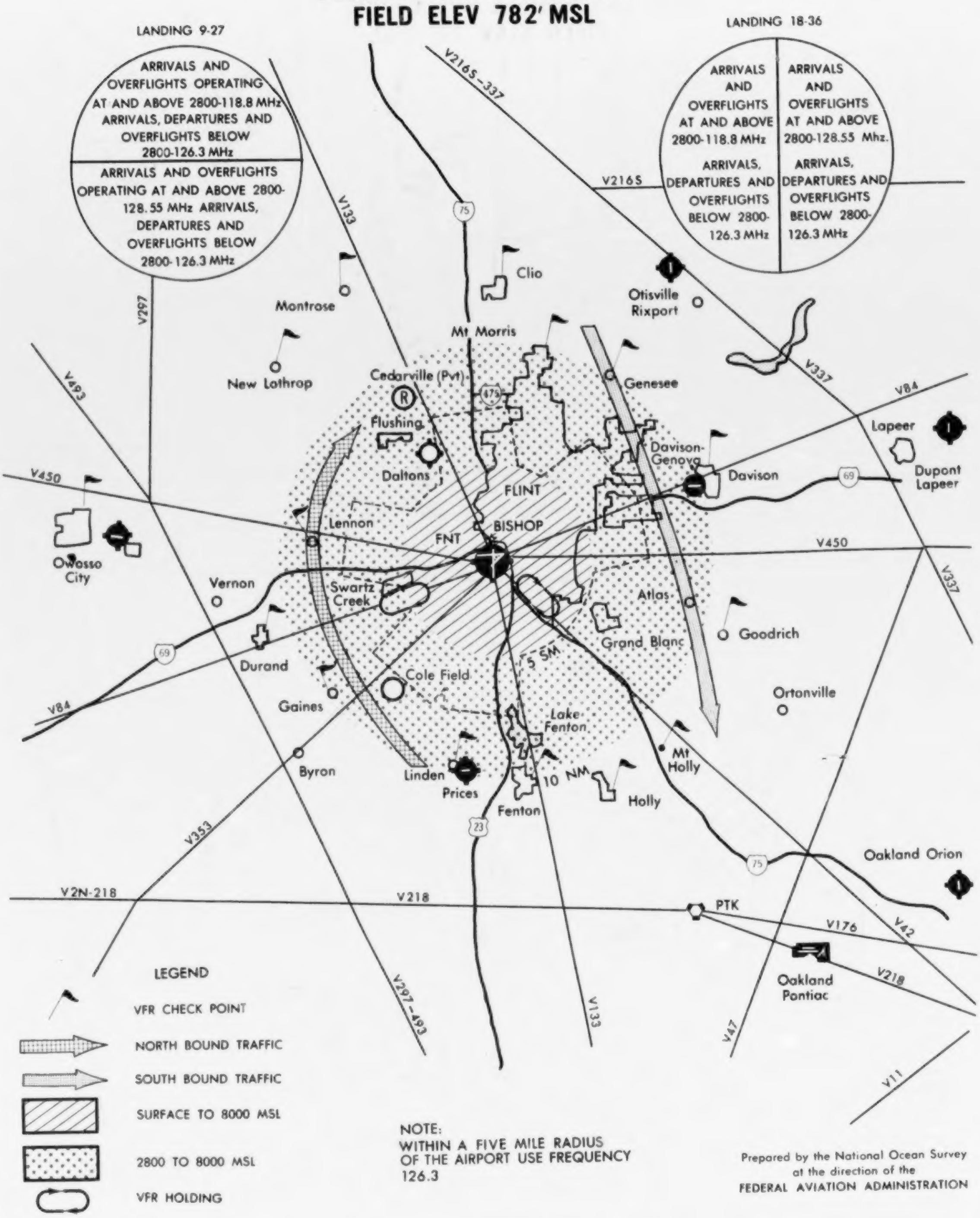
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FLINT, MICHIGAN
FLINT BISHOP AIRPORT
FIELD ELEV 782′ MSL


LANDING 9-27
ARRIVALS AND OVERFLIGHTS OPERATING AT AND ABOVE 2800-118.8 MHz ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
ARRIVALS AND OVERFLIGHTS OPERATING AT AND ABOVE 2800-128.55 MHz ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
LANDING 18-36
ARRIVALS AND OVERFLIGHTS AT AND ABOVE 2800-118.8 MHz
ARRIVALS AND OVERFLIGHTS AT AND ABOVE 2800-128.55 Mhz.
ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
V216S-337
V216S
V133
V297
V493
V450
V84
V337
V353
V2N-218
V218
V176
V42
V47
V11
V297-493
75
475
69
23
Clio
Montrose
Mt Morris
Otisville
Rixport
New Lothrop
Cedarville (Pvt)
Genesee
Flushing
Daltons
Davison-Genova
Davison
Lapeer
Dupont Lapeer
FLINT
Lennon
FNT
BISHOP
Owosso City
Vernon
Swartz Creek
Atlas
Goodrich
Grand Blanc
Durand
5 SM
Cole Field
Gaines
Ortonville
Lake Fenton
Byron
Linden
Prices
10 NM
Mt Holly
Holly
Fenton
Oakland Orion
PTK
Oakland Pontiac
LEGEND
VFR CHECK POINT
NORTH BOUND TRAFFIC
SOUTH BOUND TRAFFIC
SURFACE TO 8000 MSL
2800 TO 8000 MSL
VFR HOLDING

NOTE:
WITHIN A FIVE MILE RADIUS
OF THE AIRPORT USE FREQUENCY
126.3

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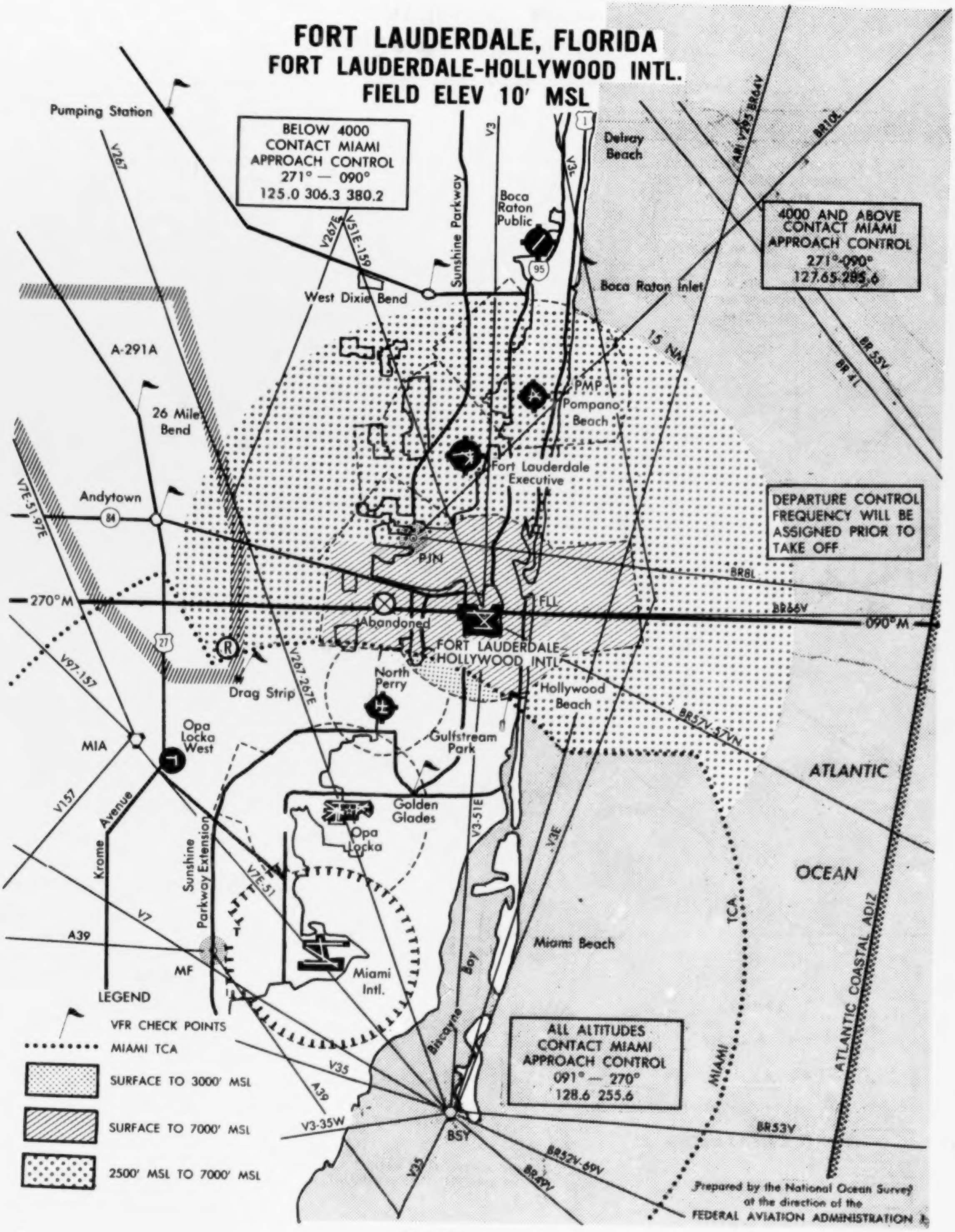
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE-HOLLYWOOD INTL.
FIELD ELEV 10′ MSL


BELOW 4000
CONTACT MIAMI
APPROACH CONTROL
271° — 090°
125.0 306.3 380.2
4000 AND ABOVE
CONTACT MIAMI
APPROACH CONTROL
271°-090°
127.65 285.6
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF
ALL ALTITUDES
CONTACT MIAMI
APPROACH CONTROL
091° — 270°
128.6 255.6
Pumping Station
V267
V267E
V51E-159
Sunshine Parkway
V3
1
V3E
Delray Beach
Boca Raton Public
95
West Dixie Bend
Boca Raton Inlet
AR1 V295 BR64V
BR10L
BR 55V
BR 4L
15 NM
A-291A
26 Mile Bend
PMP
Pompano Beach
Fort Lauderdale Executive
Andytown
84
V7E-51-97E
PJN
BR8L
270°M
090°M
BR66V
Abandoned
FLL
FORT LAUDERDALE-HOLLYWOOD INTL
27
R
Drag Strip
V267-267E
North Perry
Hollywood Beach
BR57V-57VN
V97-157
MIA
Opa Locka West
Gulfstream Park
ATLANTIC
OCEAN
V157
Krome Avenue
Sunshine Parkway Extension
Golden Glades
Opa Locka
V3-51E
V3E
V7E-51
V7
A39
MF
Miami Intl.
Miami Beach
Biscayne Bay
TCA
MIAMI
ATLANTIC COASTAL ADIZ
V35
A39
V3-35W
BSY
BR53V
BR52V-69V
BR69V
V35
LEGEND
VFR CHECK POINTS
MIAMI TCA
SURFACE TO 3000′ MSL
SURFACE TO 7000′ MSL
2500′ MSL TO 7000′ MSL

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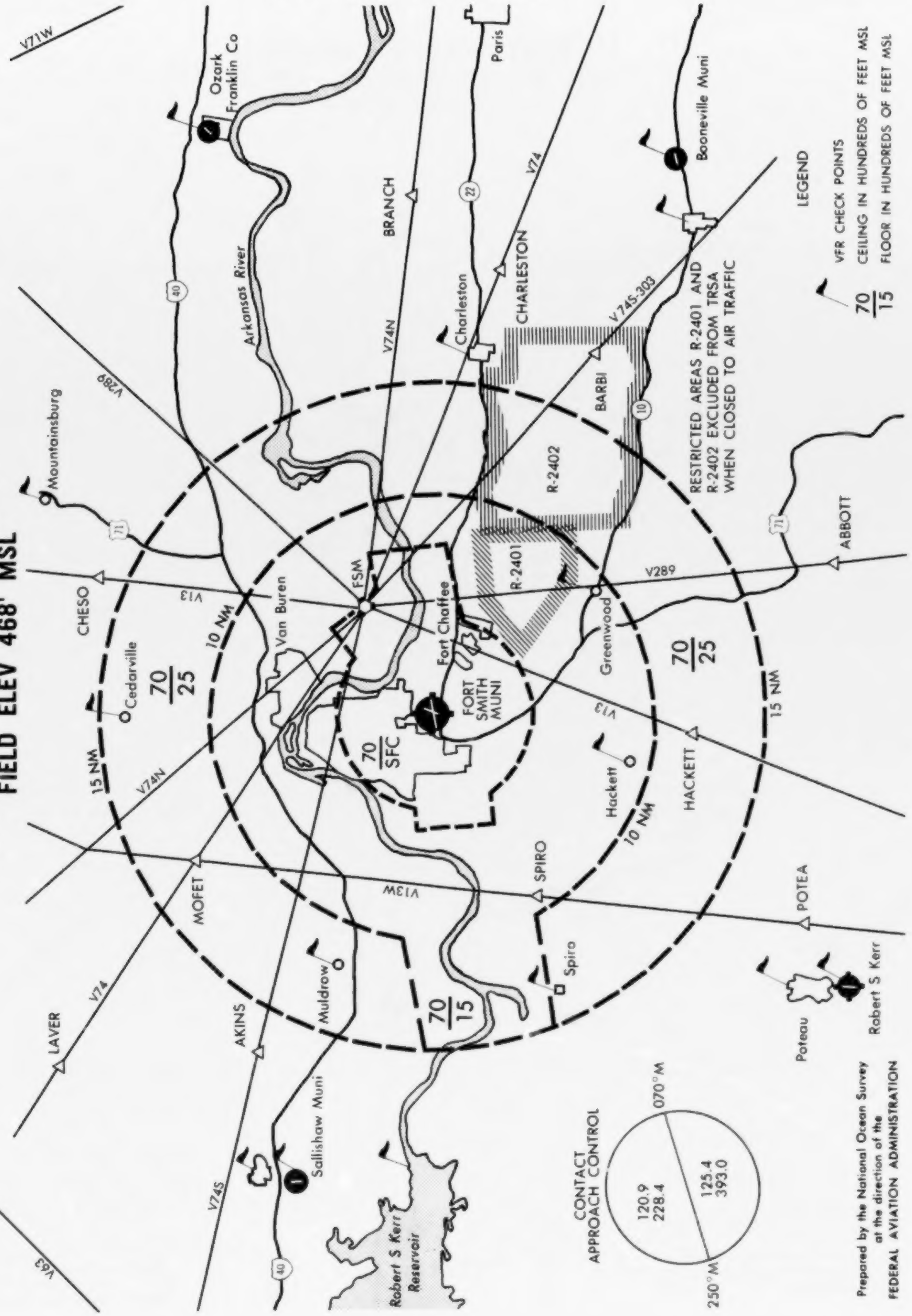
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FORT SMITH, ARKANSAS
FORT SMITH MUNICIPAL AIRPORT
FIELD ELEV 468' MSL


V71W
Ozark Franklin Co
Paris
Booneville Muni
Arkansas River
40
22
71
10
BRANCH
CHARLESTON
Charleston
V74
V74N
V74S-303
BARBI
R-2402
R-2401
V289
Mountainsburg
CHESO
V13
FSM
Van Buren
Fort Chaffee
FORT SMITH MUNI
Greenwood
ABBOTT
Cedarville
70/25
70/SFC
10 NM
15 NM
HACKETT
Hackett
V13W
SPIRO
Spiro
POTEA
MOFET
Muldrow
70/15
LAVER
AKINS
V74S
Sallishaw Muni
Poteau
Robert S Kerr
Robert S Kerr Reservoir
V63
LEGEND
VFR CHECK POINTS
70 CEILING IN HUNDREDS OF FEET MSL
15 FLOOR IN HUNDREDS OF FEET MSL
CONTACT APPROACH CONTROL
120.9
228.4
125.4
393.0
070°M
250°M

RESTRICTED AREAS R-2401 AND R-2402 EXCLUDED FROM TRSA WHEN CLOSED TO AIR TRAFFIC

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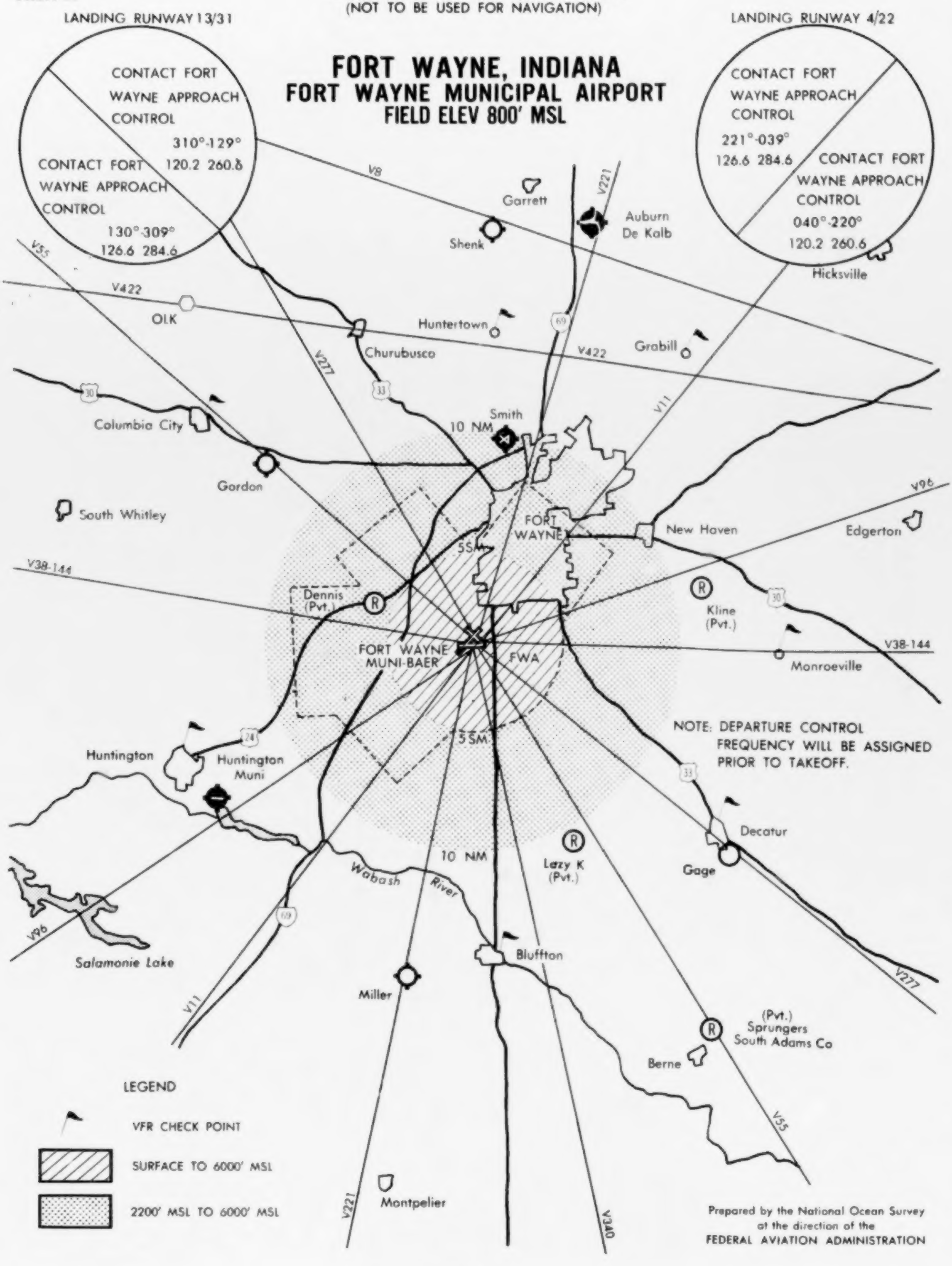
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FORT WAYNE, INDIANA
FORT WAYNE MUNICIPAL AIRPORT
FIELD ELEV 800' MSL


LANDING RUNWAY 13/31
CONTACT FORT WAYNE APPROACH CONTROL
310°-129°
120.2 260.8
CONTACT FORT WAYNE APPROACH CONTROL
130°-309°
126.6 284.6
LANDING RUNWAY 4/22
CONTACT FORT WAYNE APPROACH CONTROL
221°-039°
126.6 284.6
CONTACT FORT WAYNE APPROACH CONTROL
040°-220°
120.2 260.6
V8
V221
Garrett
Auburn De Kalb
Shenk
Hicksville
V55
V422
OLK
Huntertown
Grabill
Churubusco
V277
69
V422
V11
30
33
Columbia City
Smith
10 NM
Gordon
South Whitley
FORT WAYNE
New Haven
V96
Edgerton
V38-144
5SM
Dennis (Pvt.)
R
Kline (Pvt.)
30
V38-144
FORT WAYNE MUNI-BAER
FWA
Monroeville
Huntington
24
Huntington Muni
5SM
33
Decatur
Gage
10 NM
R
Lazy K (Pvt.)
Wabash River
69
V96
Salamonie Lake
Bluffton
V277
Miller
V11
R
(Pvt.) Sprungers South Adams Co
Berne
V55
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2200' MSL TO 6000' MSL
V221
Montpelier
V340

NOTE: DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKEOFF.

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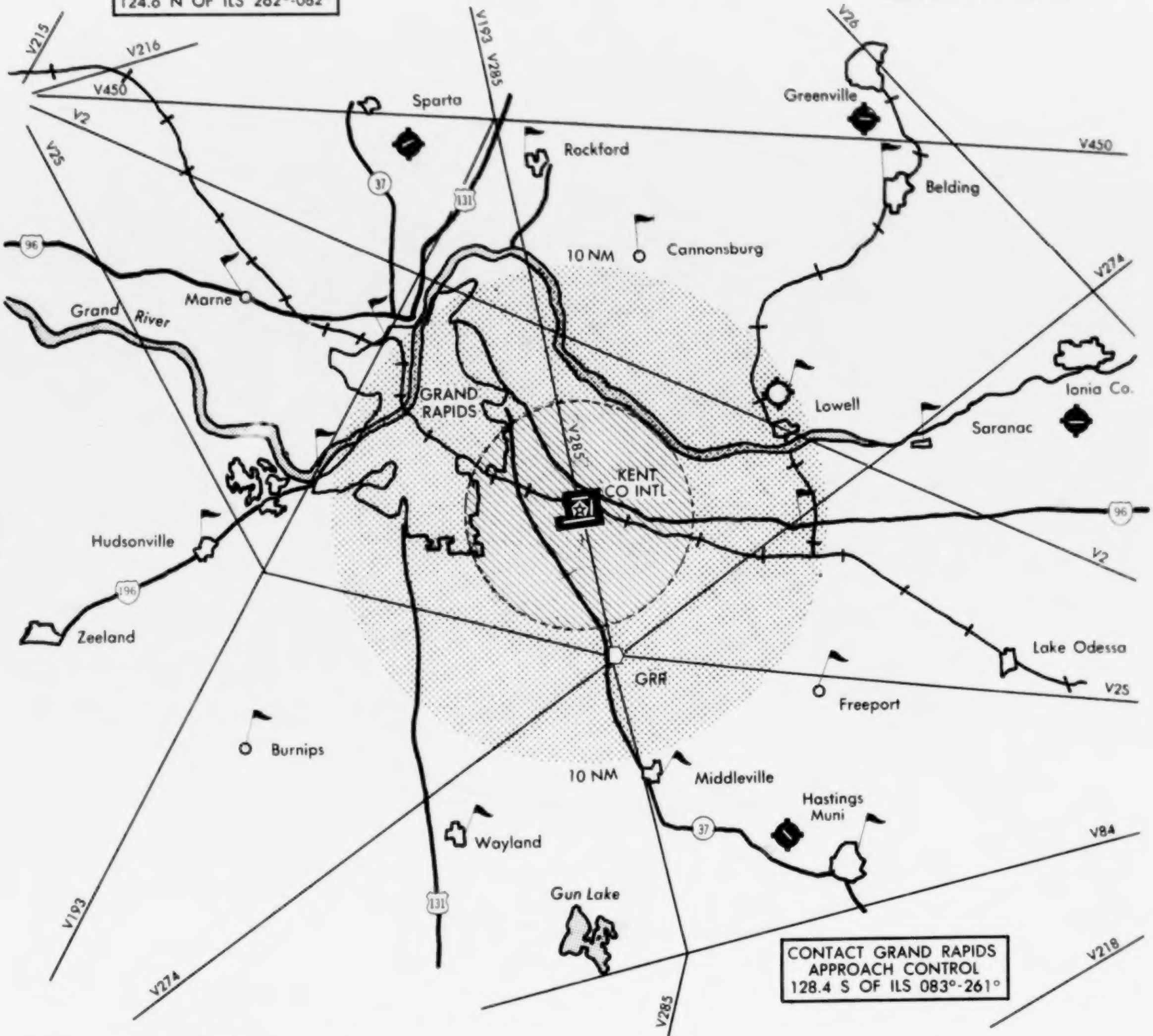
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GRAND RAPIDS, MICHIGAN
KENT COUNTY INTERNATIONAL AIRPORT
FIELD ELEV 794' MSL

CONTACT GRAND RAPIDS
APPROACH CONTROL
124.6 N OF ILS 262°-082°

DEPARTURE FREQUENCY
WILL BE ASSIGNED BY
GROUND CONTROL


V215
V216
V450
V2
V25
V193 V285
V26
Sparta
Rockford
Greenville
V450
Belding
37
131
96
10 NM
Cannonsburg
V274
Marne
Grand River
GRAND RAPIDS
Lowell
Ionia Co.
Saranac
V285
KENT CO INTL
96
Hudsonville
V2
196
Zeeland
Lake Odessa
GRR
V25
Freeport
Burnips
10 NM
Middleville
Hastings Muni
37
V84
Wayland
131
Gun Lake
V193
V274
V285
V218

CONTACT GRAND RAPIDS
APPROACH CONTROL
128.4 S OF ILS 083°-261°

LEGEND

⚑ VFR CHECK POINT

▨ SURFACE TO 6000' MSL
WITHIN AIRPORT CONTROL ZONE

░ 2500' MSL TO 6000' MSL

ATIS 118.85 MHz

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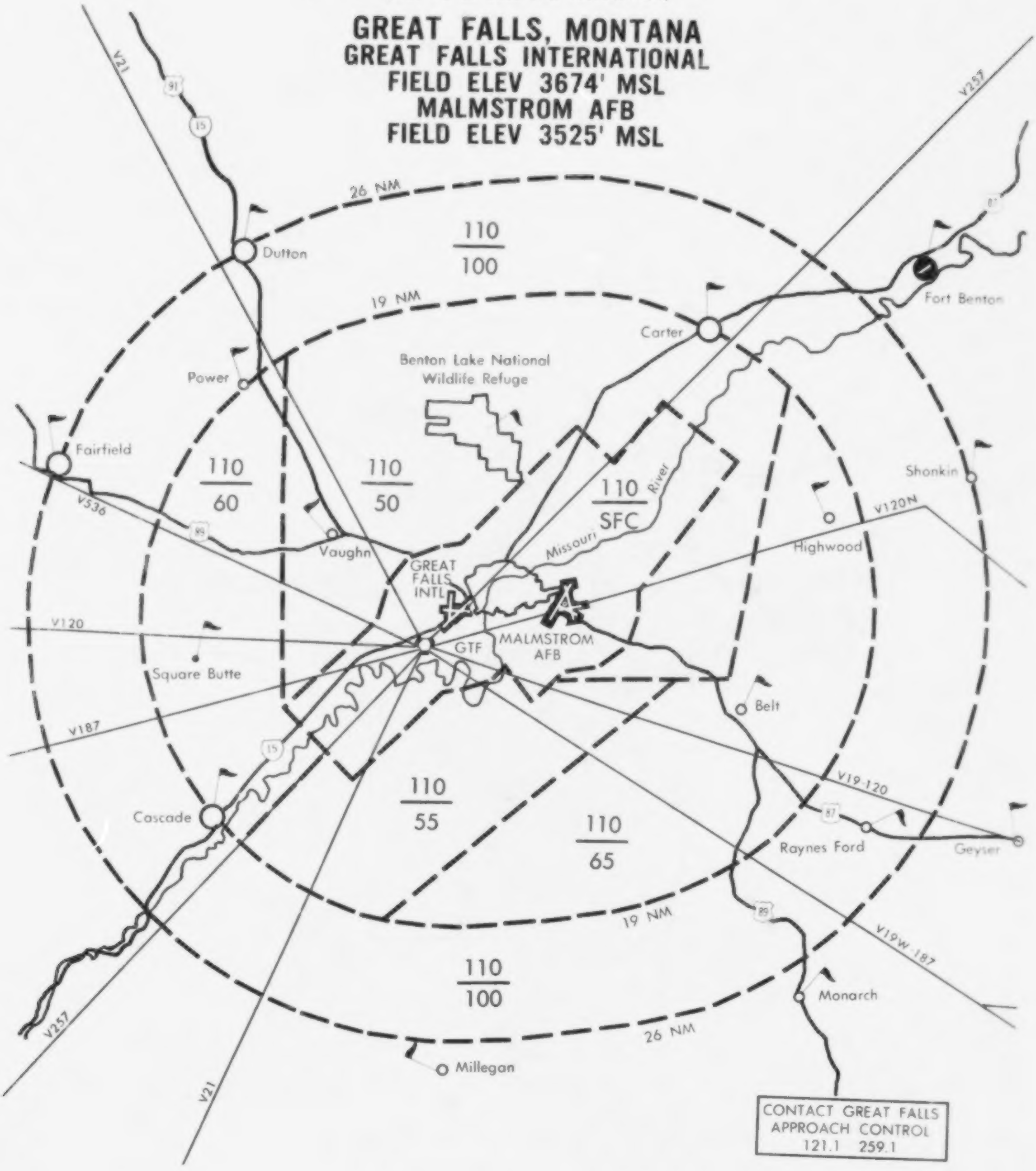
9 AUG 1979

TRSA-52

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREAT FALLS, MONTANA
GREAT FALLS INTERNATIONAL
FIELD ELEV 3674' MSL
MALMSTROM AFB
FIELD ELEV 3525' MSL


V21
91
15
V257
26 NM
110/100
Dutton
19 NM
Carter
Fort Benton
87
Power
Benton Lake National Wildlife Refuge
Fairfield
110/60
110/50
110/SFC
Missouri River
Shonkin
V536
89
Vaughn
GREAT FALLS INTL
Highwood
V120N
V120
GTF
MALMSTROM AFB
Square Butte
Belt
V187
15
110/55
V19-120
Cascade
110/65
87
Raynes Ford
Geyser
19 NM
89
V19W-187
110/100
Monarch
V257
26 NM
Millegan
V21
V113

CONTACT GREAT FALLS
APPROACH CONTROL
121.1 259.1

LEGEND

VFR CHECKPOINT

110 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
55 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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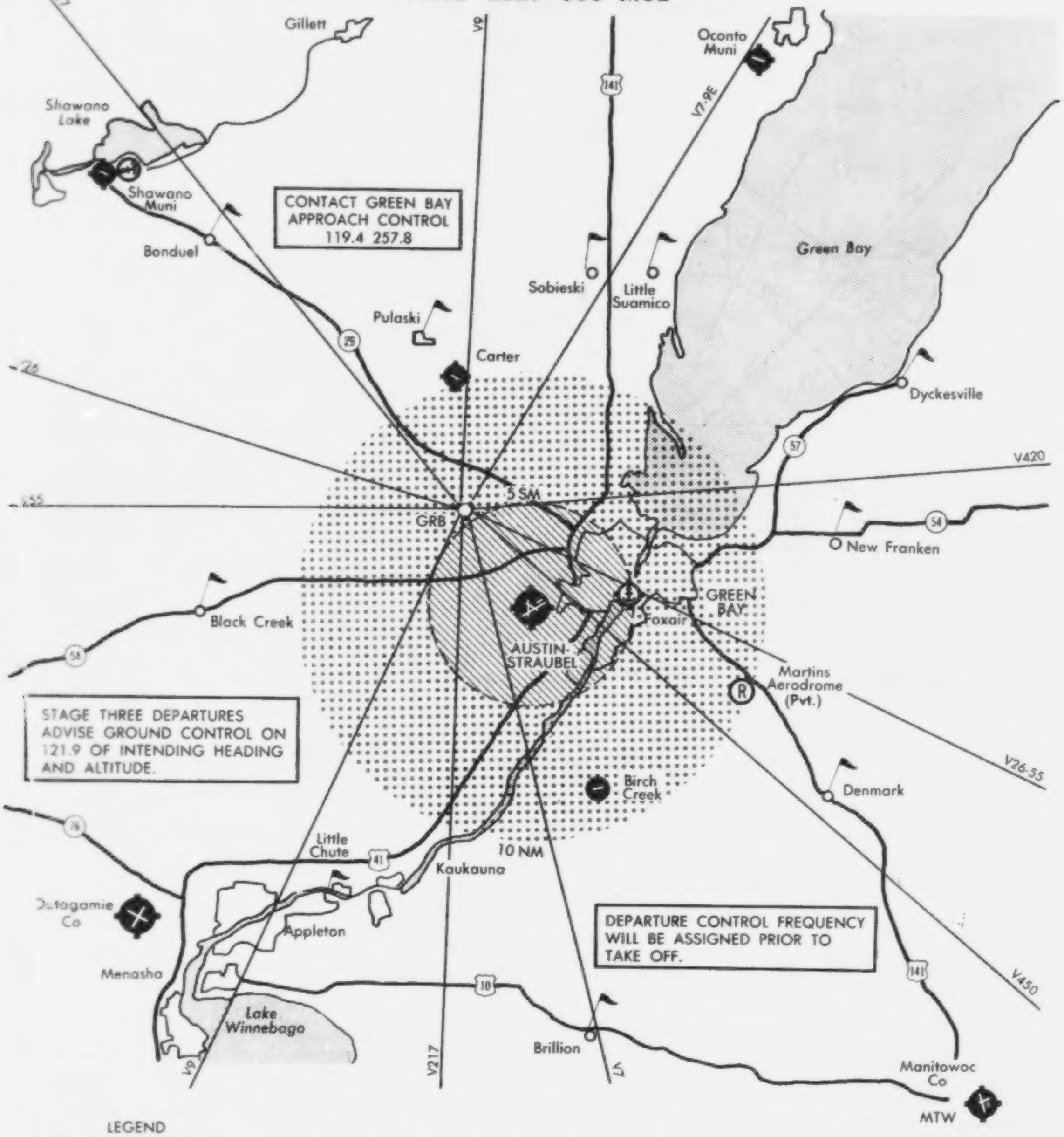
10 SEP 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREEN BAY, WISCONSIN AUSTIN-STRAUBEL ARPT.

FIELD ELEV 695' MSL


V217
Gillett
V9
Oconto Muni
141
V7-9E
Shawano Lake
Shawano Muni
Bonduel
Green Bay
Sobieski
Little Suamico
Pulaski
29
Carter
Dyckesville
V26
57
V420
V55
5 SM
GRB
54
New Franken
GREEN BAY
Foxair
Black Creek
AUSTIN-STRAUBEL
54
Martins Aerodrome (Pvt.)
R
V26-55
Denmark
Birch Creek
76
Little Chute
41
10 NM
Kaukauna
Outagamie Co
Appleton
141
V450
Menasha
10
Lake Winnebago
Brillion
V9
V217
V7
Manitowoc Co
MTW

CONTACT GREEN BAY
APPROACH CONTROL
119.4 257.8

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDING HEADING AND ALTITUDE.

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF.

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE

░ 2500' TO 6000' MSL

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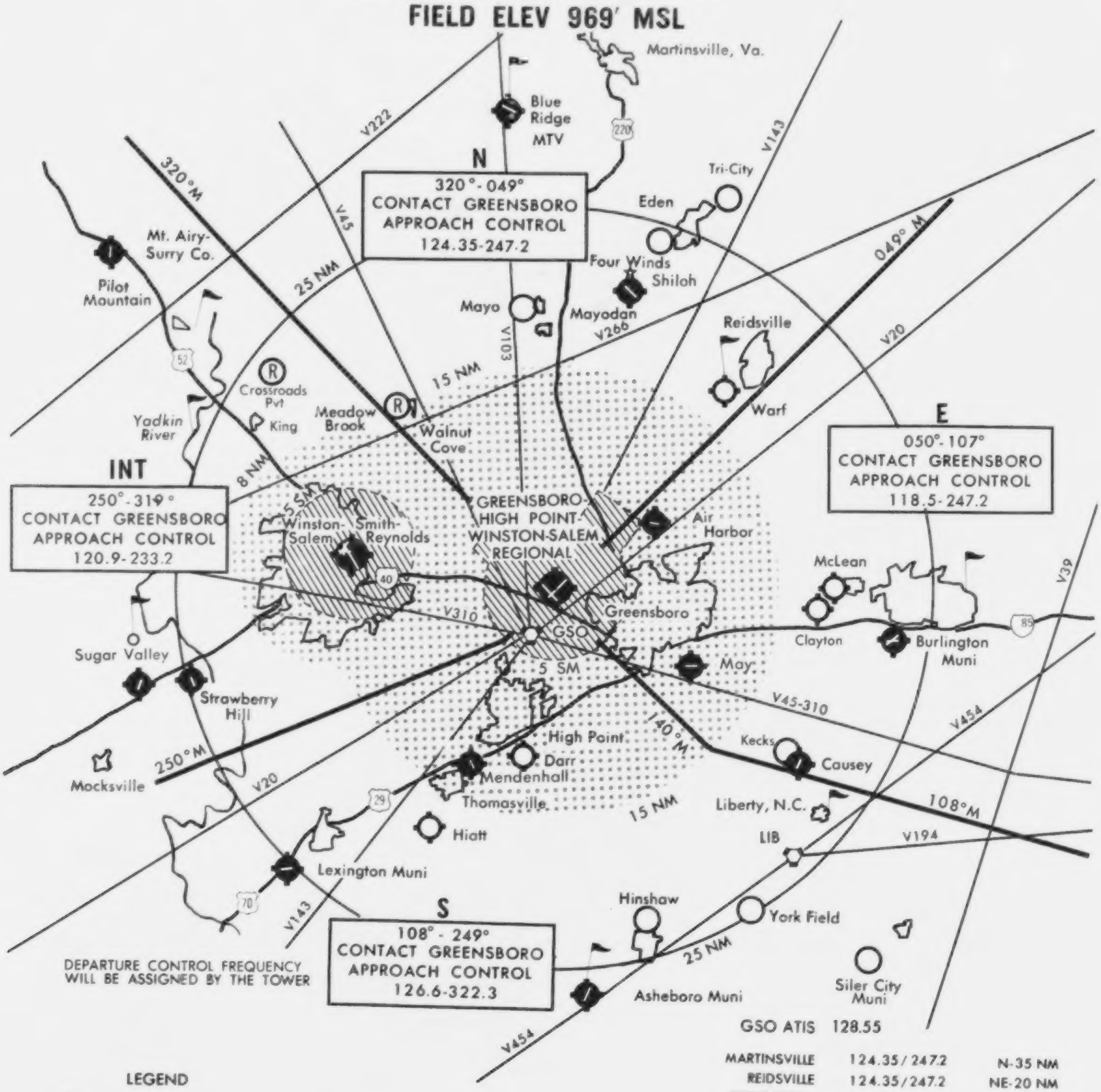
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREENSBORO-HIGH POINT-WINSTON SALEM REGIONAL
FIELD ELEV. 926′ MSL
AND SMITH REYNOLDS ARPTS
FIELD ELEV 969′ MSL


Martinsville, Va.
Blue Ridge
MTV
220
V222
V143
N
320°-049°
CONTACT GREENSBORO
APPROACH CONTROL
124.35-247.2
320°M
Tri-City
Eden
Mt. Airy-Surry Co.
Pilot Mountain
V45
25 NM
Four Winds
Shiloh
049°M
Mayo
Mayodan
V266
Reidsville
V20
V103
52
R
Crossroads Pvt
King
Yadkin River
Meadow Brook
R
Walnut Cove
15 NM
Warf
E
050°-107°
CONTACT GREENSBORO
APPROACH CONTROL
118.5-247.2
INT
250°-319°
CONTACT GREENSBORO
APPROACH CONTROL
120.9-233.2
8 NM
5 SM
Winston-Salem
Smith-Reynolds
40
GREENSBORO-HIGH POINT-WINSTON-SALEM REGIONAL
Air Harbor
McLean
V39
V310
Greensboro
GSO
Clayton
85
Burlington Muni
Sugar Valley
5 SM
May
Strawberry Hill
V45-310
V454
140°M
High Point
Kecks
Causey
250°M
Darr
Mendenhall
Mocksville
V20
29
Thomasville
15 NM
Liberty, N.C.
108°M
Hiatt
LIB
V194
Lexington Muni
70
V143
S
108°-249°
CONTACT GREENSBORO
APPROACH CONTROL
126.6-322.3
Hinshaw
York Field
25 NM
Asheboro Muni
Siler City Muni
V454

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BY THE TOWER

GSO ATIS 128.55

MARTINSVILLE	124.35/247.2	N-35 NM
REIDSVILLE	124.35/247.2	NE-20 NM
BURLINGTON	118.5/247.2	E-25 NM
LIBERTY	126.6/322.3	SE-23 NM
ASHEBORO	126.6/322.3	SSE-23 NM
LEXINGTON	126.6/322.3	SW-23 NM
SUGAR VALLEY STRAWBERRY HILL	120.9/233.2	WSW-25 NM
YADKIN RIVER	120.9/233.2	W-20 NM
PILOT MOUNTAIN	120.9/233.2	NW-32 NM

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE
- ⠿ 1900′ TO 7000′ MSL

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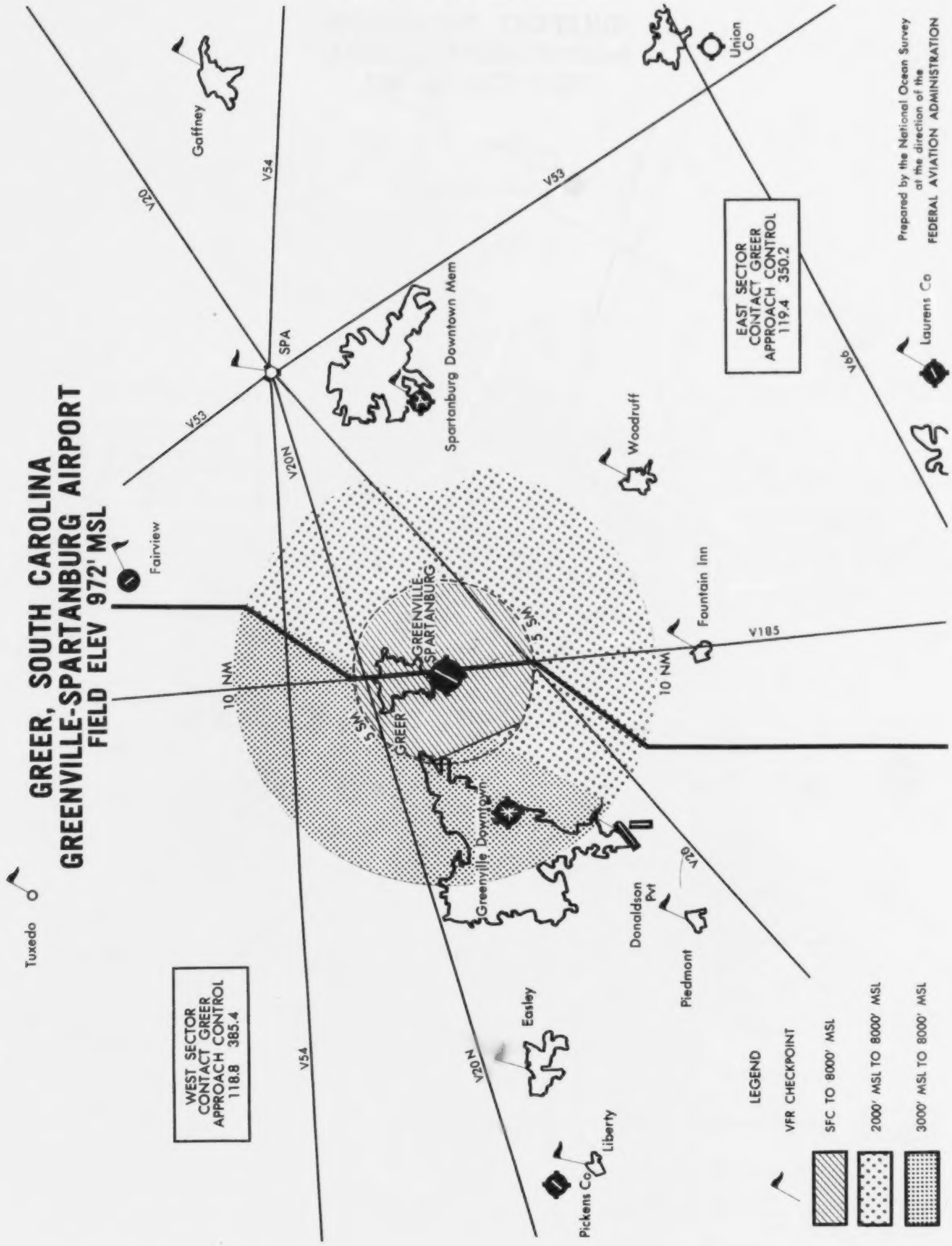
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



GREER, SOUTH CAROLINA
GREENVILLE-SPARTANBURG AIRPORT
FIELD ELEV 972' MSL

EAST SECTOR
CONTACT GREER
APPROACH CONTROL
119.4 350.2

WEST SECTOR
CONTACT GREER
APPROACH CONTROL
118.8 385.4

LEGEND
- VFR CHECKPOINT
- ▨ SFC TO 8000' MSL
- ⁘ 2000' MSL TO 8000' MSL
- ▦ 3000' MSL TO 8000' MSL

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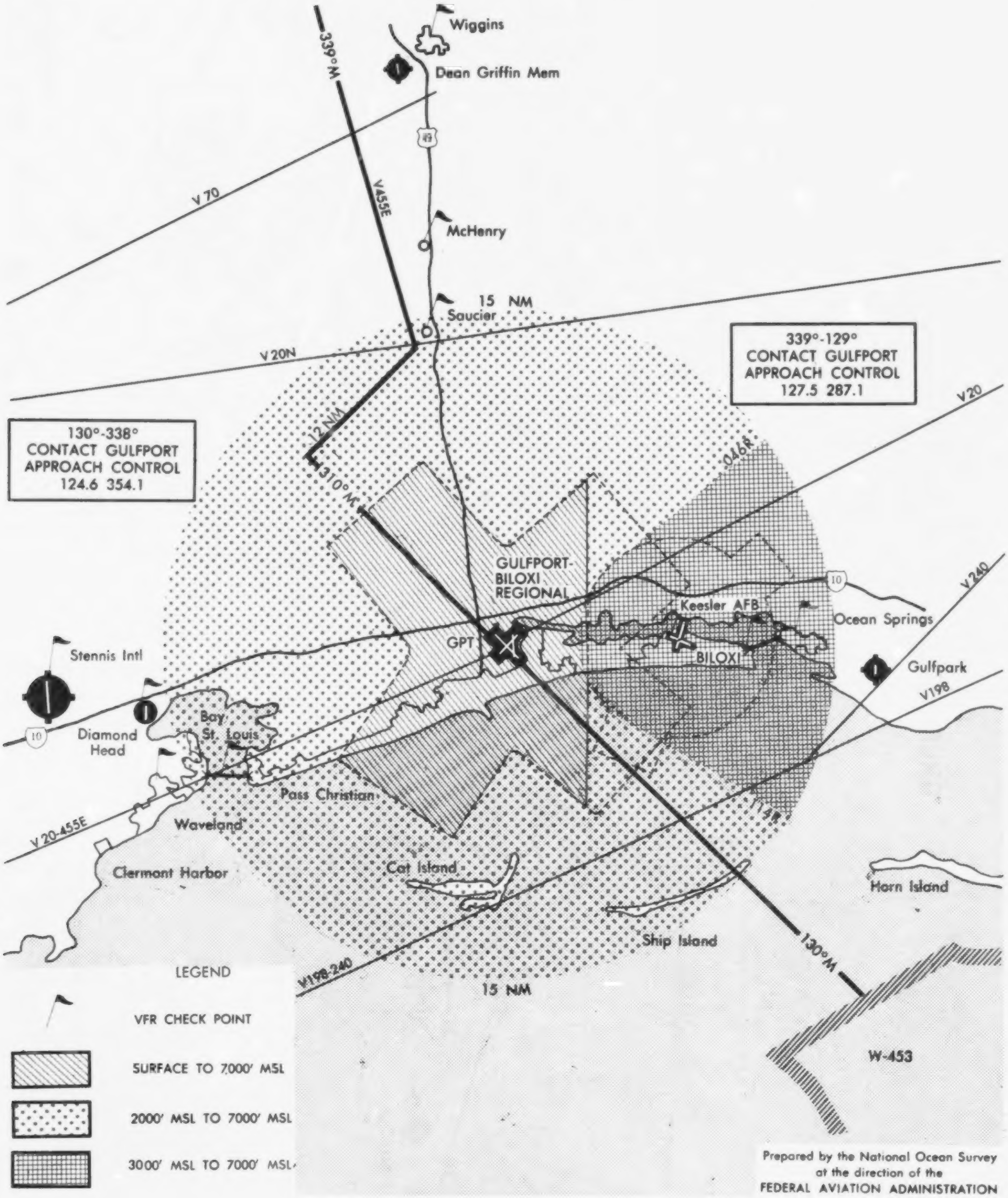
Gaffney
Union Co
V20
V54
V53
SPA
Spartanburg Downtown Mem
V66
Laurens Co
Woodruff
Fairview
V20N
GREENVILLE-SPARTANBURG
GREER
10 NM
5 SM
Fountain Inn
V185
Greenville Downtown
Donaldson Pvt
Tuxedo
Piedmont
Easley
V54
V20N
Liberty
Pickens Co

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GULFPORT, MISSISSIPPI
GULFPORT-BILOXI REGIONAL
FIELD ELEV 28' MSL


339°M
Wiggins
Dean Griffin Mem
49
V 70
V455E
McHenry
15 NM
Saucier
V 20N
339°-129°
CONTACT GULFPORT
APPROACH CONTROL
127.5 287.1
V 20
130°-338°
CONTACT GULFPORT
APPROACH CONTROL
124.6 354.1
12 NM
310°M
046R
GULFPORT-
BILOXI
REGIONAL
10
Keesler AFB
Ocean Springs
GPT
BILOXI
Gulfpark
V 240
V198
Stennis Intl
10
Diamond
Head
Bay
St. Louis
Pass Christian
Waveland
V 20-455E
Clermont Harbor
Cat Island
Horn Island
Ship Island
130°M
V198-240
15 NM
W-453
LEGEND
VFR CHECK POINT
SURFACE TO 7,000' MSL
2000' MSL TO 7000' MSL
3000' MSL TO 7000' MSL

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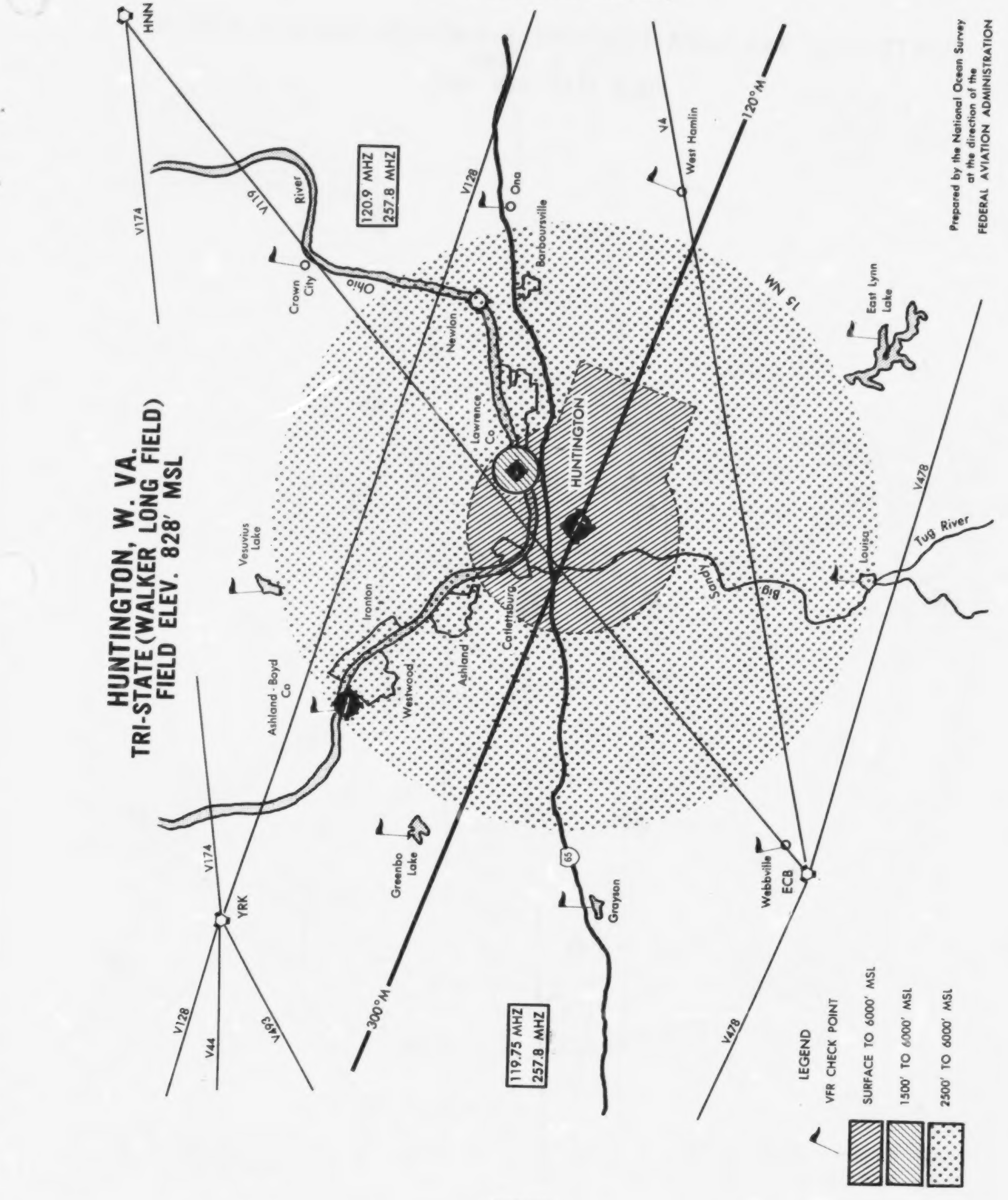
5 APR 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



HUNTINGTON, W. VA.

TRI-STATE (WALKER LONG FIELD)

FIELD ELEV. 828' MSL

HNN
V174
V119
River
Ohio
Crown City
120.9 MHZ
257.8 MHZ
V128
Ona
Barboursville
Newton
Lawrence Co.
HUNTINGTON
V4
West Hamlin
120°M
15 NM
East Lynn Lake
V478
Tug River
Louisa
Big
Sandy
Vesuvius Lake
Ironton
Catlettsburg
Ashland
Westwood
Ashland - Boyd Co
Greenbo Lake
65
Grayson
Webbville
ECB
YRK
V174
V128
V44
V493
300°M
119.75 MHZ
257.8 MHZ
V478
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
1500' TO 6000' MSL
2500' TO 6000' MSL

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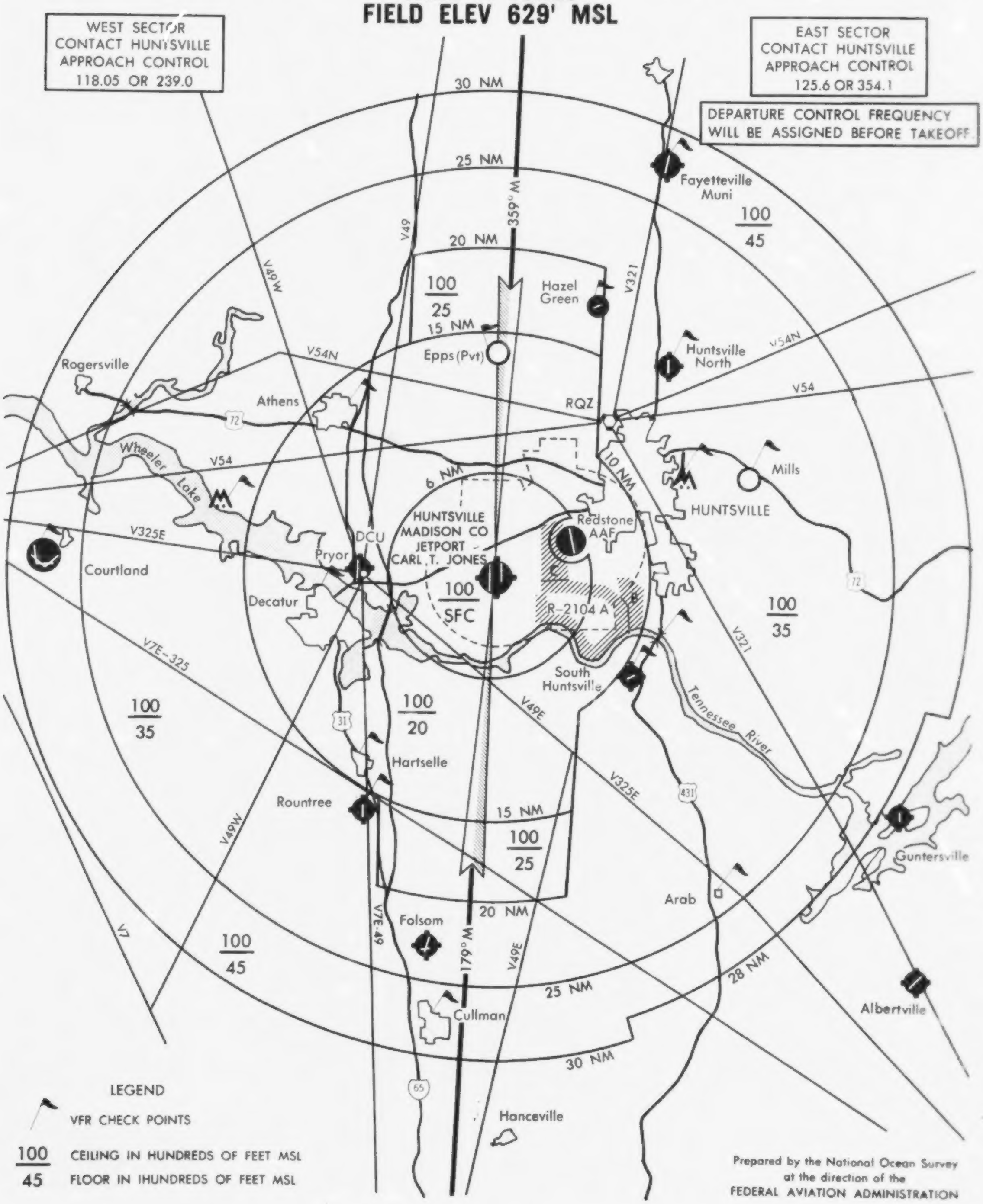
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

HUNTSVILLE, ALABAMA HUNTSVILLE-MADISON COUNTY JETPORT
CARL T. JONES
FIELD ELEV 629' MSL


30 NM
25 NM
20 NM
15 NM
359° M
V49
V49W
100
25
Hazel Green
Epps (Pvt)
V321
Fayetteville Muni
100
45
Huntsville North
V54N
V54
RQZ
Rogersville
Athens
72
V54N
Wheeler Lake
V54
6 NM
10 NM
HUNTSVILLE MADISON CO JETPORT CARL T. JONES
100
SFC
Redstone AAF
R-2104 A
B
C
Mills
HUNTSVILLE
72
DCU
Pryor
V325E
Courtland
Decatur
V7E-325
100
35
South Huntsville
Tennessee River
V321
100
35
V49E
31
100
20
Hartselle
Rountree
V49W
V325E
431
15 NM
100
25
Guntersville
Arab
20 NM
Folsom
V7E-49
179° M
V49E
100
45
V7
25 NM
28 NM
Albertville
Cullman
30 NM
65
Hanceville

WEST SECTOR
CONTACT HUNTSVILLE
APPROACH CONTROL
118.05 OR 239.0

EAST SECTOR
CONTACT HUNTSVILLE
APPROACH CONTROL
125.6 OR 354.1

DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF

LEGEND

⚑	VFR CHECK POINTS
100	CEILING IN HUNDREDS OF FEET MSL
45	FLOOR IN IHUNDREDS OF FEET MSL

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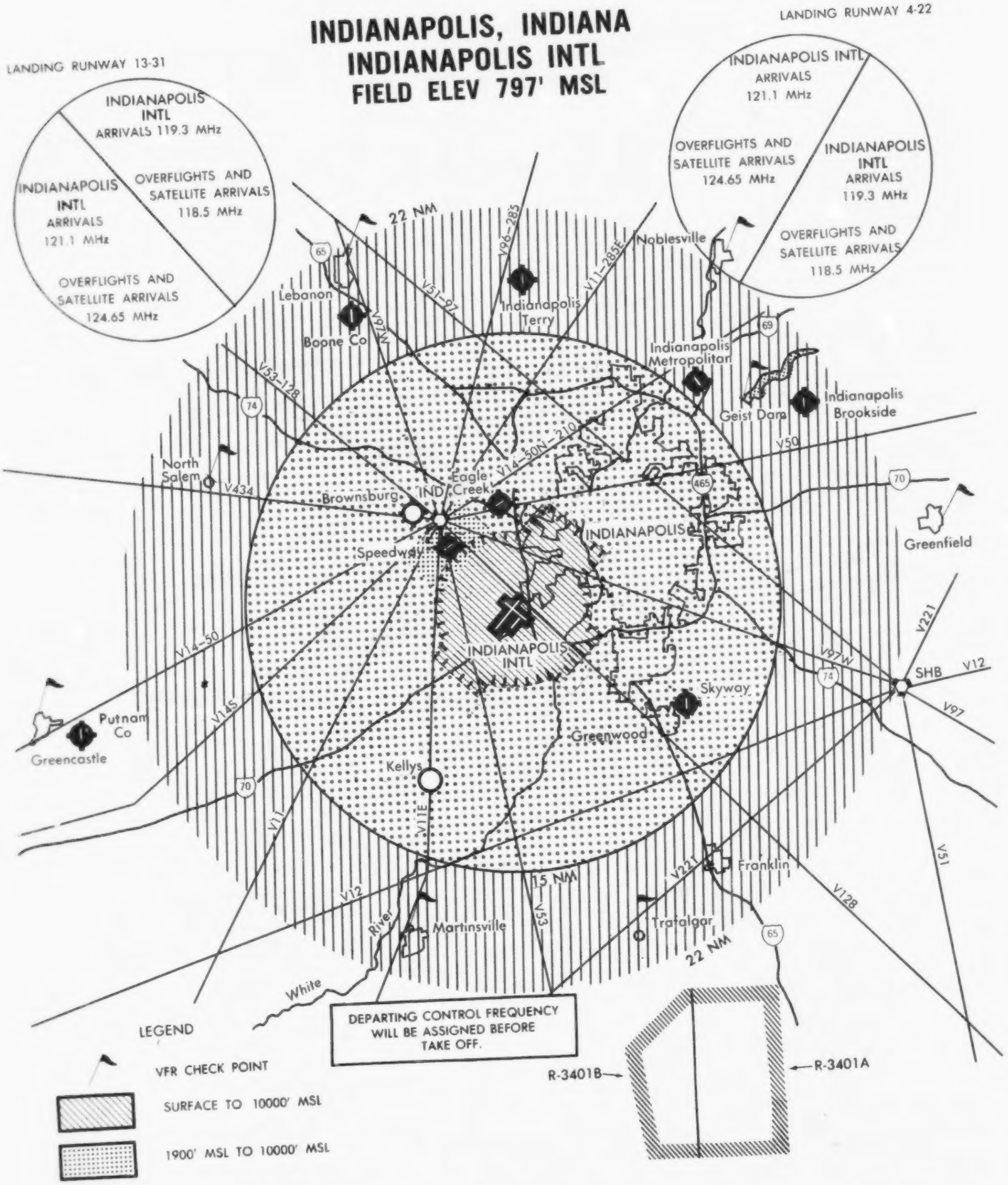
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

INDIANAPOLIS, INDIANA
INDIANAPOLIS INTL
FIELD ELEV 797' MSL


LANDING RUNWAY 13-31
INDIANAPOLIS INTL ARRIVALS 119.3 MHz
INDIANAPOLIS INTL ARRIVALS 121.1 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 118.5 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 124.65 MHz
LANDING RUNWAY 4-22
INDIANAPOLIS INTL ARRIVALS 121.1 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 124.65 MHz
INDIANAPOLIS INTL ARRIVALS 119.3 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 118.5 MHz
22 NM
65
Lebanon
Boone Co
V97W
V51-97
V96-285
Indianapolis Terry
V11-285E
Noblesville
69
Indianapolis Metropolitan
Geist Dam
Indianapolis Brookside
V53-128
74
North Salem
V434
Brownsburg
IND
Eagle Creek
V14-50N-210
V50
465
70
Greenfield
INDIANAPOLIS
Speedway
INDIANAPOLIS INTL
V14-50
V221
V97W
74
SHB
V12
V97
Skyway
Putnam Co
Greencastle
V14S
Greenwood
Kellys
70
V11
V11E
15 NM
Franklin
V221
V12
River
Martinsville
V53
Trafalgar
V128
V51
65
22 NM
White
R-3401B
R-3401A

DEPARTING CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE
TAKE OFF.

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 10000' MSL
- ░ 1900' MSL TO 10000' MSL
- ⁘ 2000' MSL TO 10000' MSL
- ▥ 6000' MSL TO 10000' MSL

NOTE: VFR ARRIVALS VERIFY LANDING RUNWAY ON ATIS TO DETERMINE APPROACH CONTROL FREQUENCY. 125.35 MHz

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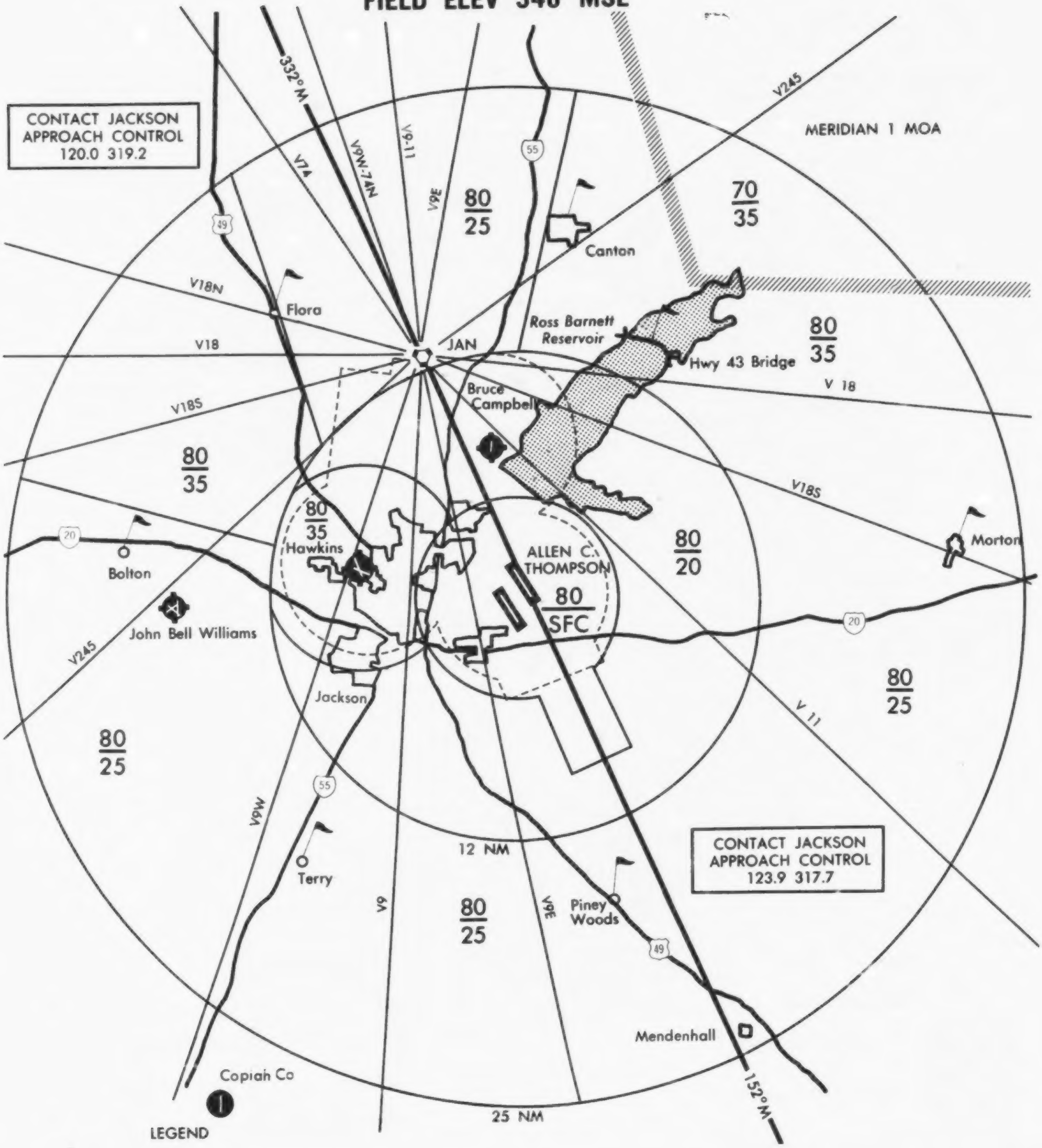
9 AUG 1979

TRSA-60

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

JACKSON, MISSISSIPPI
ALLEN C. THOMPSON FIELD
FIELD ELEV 346′ MSL


CONTACT JACKSON APPROACH CONTROL 120.0 319.2
332° M
V74
V9W-74N
V9-11
V9E
55
80/25
70/35
V245
MERIDIAN 1 MOA
49
Canton
V18N
Flora
Ross Barnett Reservoir
80/35
Hwy 43 Bridge
V18
JAN
V 18
Bruce Campbell
V18S
80/35
V18S
80/35
Hawkins
20
Bolton
ALLEN C. THOMPSON
80/20
Morton
80/SFC
John Bell Williams
20
V245
80/25
Jackson
V 11
80/25
55
V9W
12 NM
CONTACT JACKSON APPROACH CONTROL 123.9 317.7
Terry
V9
80/25
V9E
Piney Woods
49
Mendenhall
Copiah Co
152° M
25 NM

LEGEND

VFR CHECK POINT

80 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
35 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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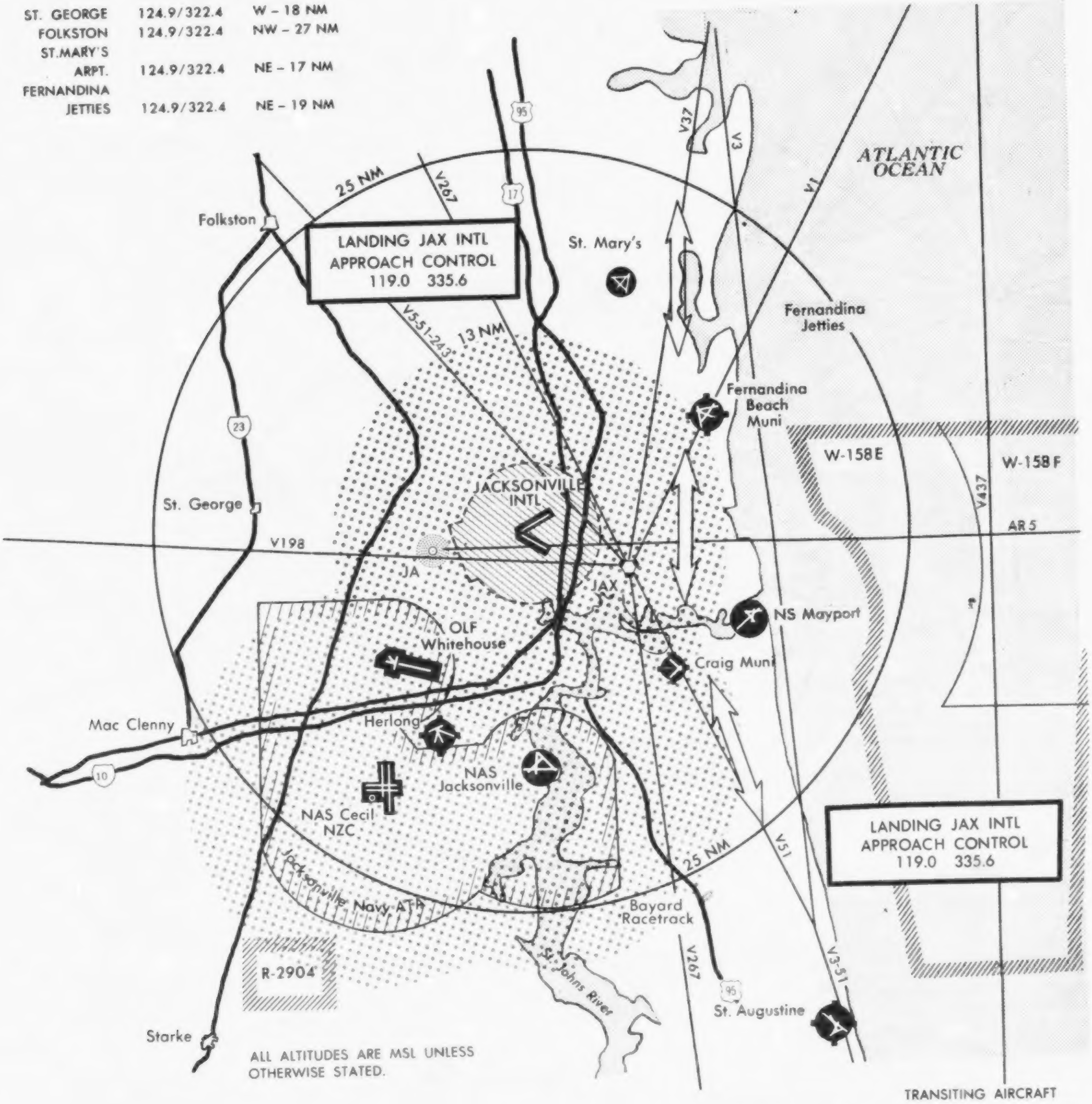
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE, FLA., JACKSONVILLE INTL. AIRPORT
FIELD ELEV. 30' MSL

TRANSITING AIRCRAFT

ST. GEORGE	124.9/322.4	W – 18 NM
FOLKSTON	124.9/322.4	NW – 27 NM
ST.MARY'S ARPT.	124.9/322.4	NE – 17 NM
FERNANDINA JETTIES	124.9/322.4	NE – 19 NM


ATLANTIC OCEAN
95
V37
V3
V1
25 NM
V267
17
Folkston
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
St. Mary's
Fernandina Jetties
V5-51-243
13 NM
Fernandina Beach Muni
23
W-158E
W-158F
V437
St. George
JACKSONVILLE INTL
V198
AR5
JA
JAX
NS Mayport
OLF Whitehouse
Craig Muni
Mac Clenny
Herlong
10
NAS Jacksonville
NAS Cecil NZC
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
25 NM
V51
Jacksonville Navy ATA
Bayard Racetrack
R-2904
V267
St Johns River
95
V3-51
St. Augustine
Starke

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

LEGEND

⇔	SUGGESTED N/S VFR ROUTE CAUTION MAYPORT AND CRAIG TRAFFIC AREA
▨	SFC TO 11,000' WITHIN AIRPORT CONTROL ZONE
⠿	2,000' TO 11,000'

TRANSITING AIRCRAFT

BAYARD RACETRACK	118.0/351.8	SE – 25 NM
NORTHBOUND 70 OR BELOW	124.4/372.1	SE – 25 NM
STARKE	127.0/319.9	SW – 40 NM
MAC CLENNY	127.0/319.9	SW – 40 NM

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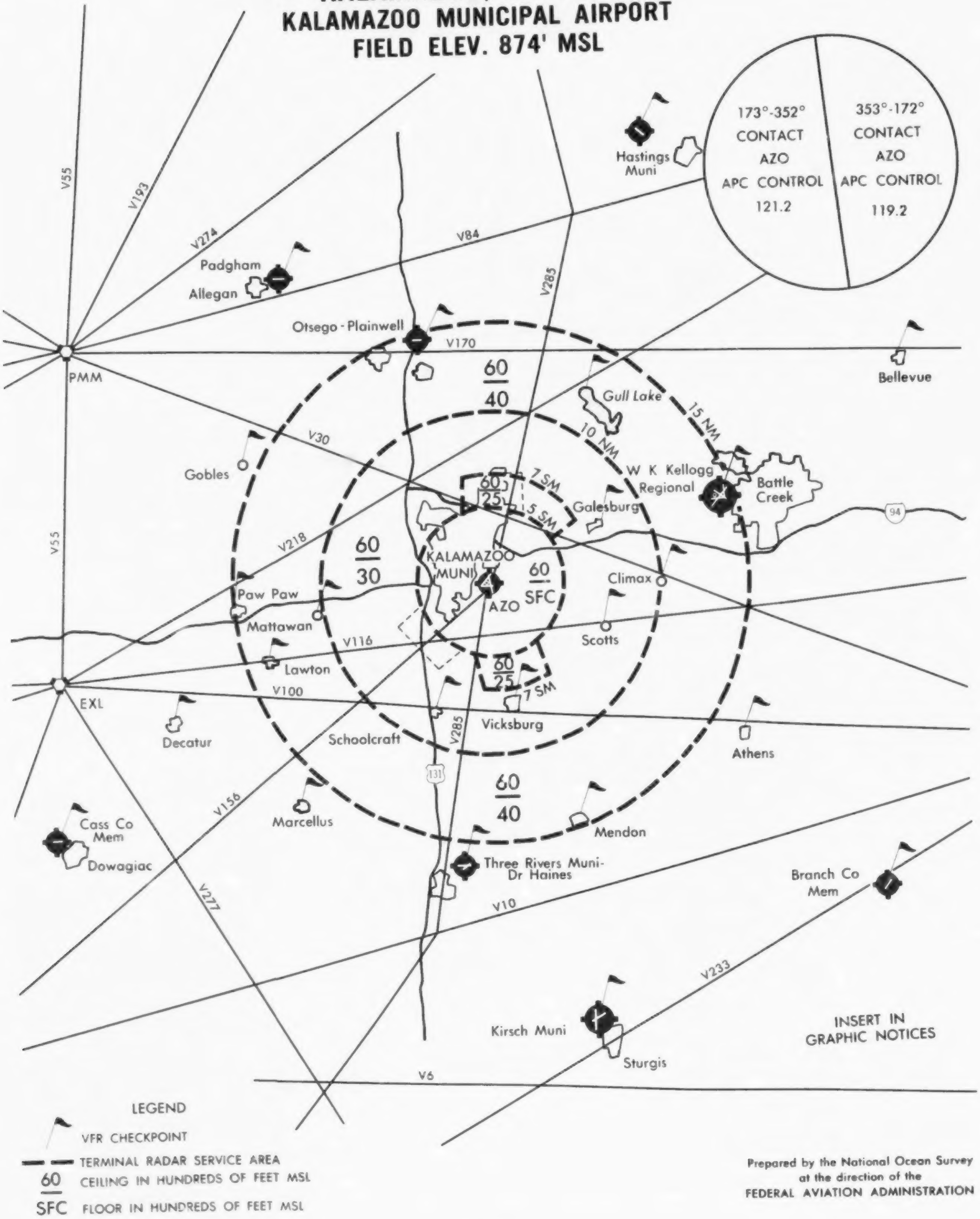
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

KALAMAZOO, MICHIGAN
KALAMAZOO MUNICIPAL AIRPORT
FIELD ELEV. 874' MSL


173°-352°
CONTACT
AZO
APC CONTROL
121.2
353°-172°
CONTACT
AZO
APC CONTROL
119.2
Hastings Muni
V55
V193
V274
V84
V285
Padgham
Allegan
Otsego - Plainwell
V170
PMM
60
40
Gull Lake
15 NM
10 NM
Bellevue
V30
Gobles
7 SM
60
25
5 SM
W K Kellogg Regional
Battle Creek
Galesburg
94
V218
60
30
KALAMAZOO MUNI
AZO
60
SFC
Climax
Paw Paw
Mattawan
Scotts
V116
Lawton
60
25
7 SM
EXL
V100
Decatur
Schoolcraft
V285
Vicksburg
Athens
131
60
40
V156
Cass Co Mem
Dowagiac
Marcellus
Mendon
Three Rivers Muni-Dr Haines
V277
V10
Branch Co Mem
V233
Kirsch Muni
Sturgis
INSERT IN GRAPHIC NOTICES
V6
LEGEND
VFR CHECKPOINT
TERMINAL RADAR SERVICE AREA
60 CEILING IN HUNDREDS OF FEET MSL
SFC FLOOR IN HUNDREDS OF FEET MSL

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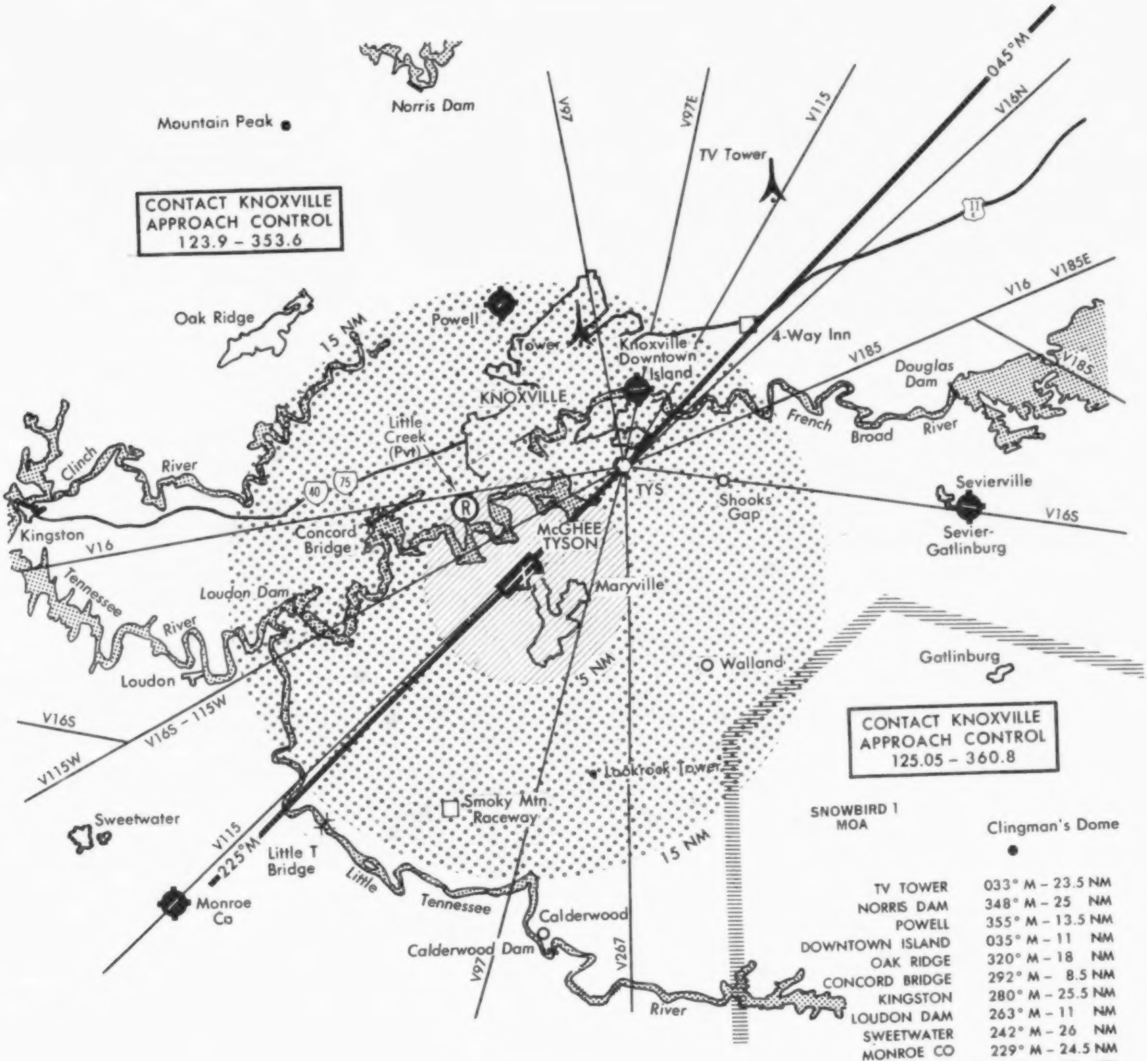
19 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

KNOXVILLE, TENNESSEE, McGHEE TYSON ARPT
FIELD ELEV. 981′ MSL


Mountain Peak
Norris Dam
V97
V97E
V115
045°M
V16N
TV Tower
11
CONTACT KNOXVILLE APPROACH CONTROL 123.9 – 353.6
Oak Ridge
15 NM
Powell
Tower
Knoxville Downtown Island
4-Way Inn
V16
V185E
V185
Douglas Dam
V185
KNOXVILLE
Little Creek (Pvt)
French Broad River
Clinch River
40
75
R
TYS
Shooks Gap
Sevierville
V16S
Sevier-Gatlinburg
Kingston
V16
Concord Bridge
McGHEE TYSON
Tennessee River
Loudon Dam
Maryville
Loudon
5 NM
O Walland
Gatlinburg
V16S
V16S – 115W
V115W
CONTACT KNOXVILLE APPROACH CONTROL 125.05 – 360.8
Lookrock Tower
Sweetwater
Smoky Mtn. Raceway
SNOWBIRD 1 MOA
Clingman's Dome
V115
225°M
Little T Bridge
15 NM
Little Tennessee River
Monroe Co
Calderwood
Calderwood Dam
V97
V267

TV TOWER	033° M – 23.5 NM
NORRIS DAM	348° M – 25 NM
POWELL	355° M – 13.5 NM
DOWNTOWN ISLAND	035° M – 11 NM
OAK RIDGE	320° M – 18 NM
CONCORD BRIDGE	292° M – 8.5 NM
KINGSTON	280° M – 25.5 NM
LOUDON DAM	263° M – 11 NM
SWEETWATER	242° M – 26 NM
MONROE CO	229° M – 24.5 NM
4-WAY INN	044° M – 17 NM
DOUGLAS DAM	067° M – 23 NM
SHOOKS GAP	065° M – 10.5 NM
SEVIER-GATLINBURG	082° M – 22.5 NM
WALLAND	120° M – 8.5 NM
GATLINBURG	103° M – 24 NM
SMOKY MTN. RACEWAY	210° M – 12.3 NM
CALDERWOOD DAM	178° M – 19 NM
CLINGMAN'S DOME	122° M – 28 NM
LITTLE T BRIDGE	218° M – 16 NM

LEGEND

▨ SURFACE TO 6000′ MSL

⠿ 4000′ TO 6000′ MSL

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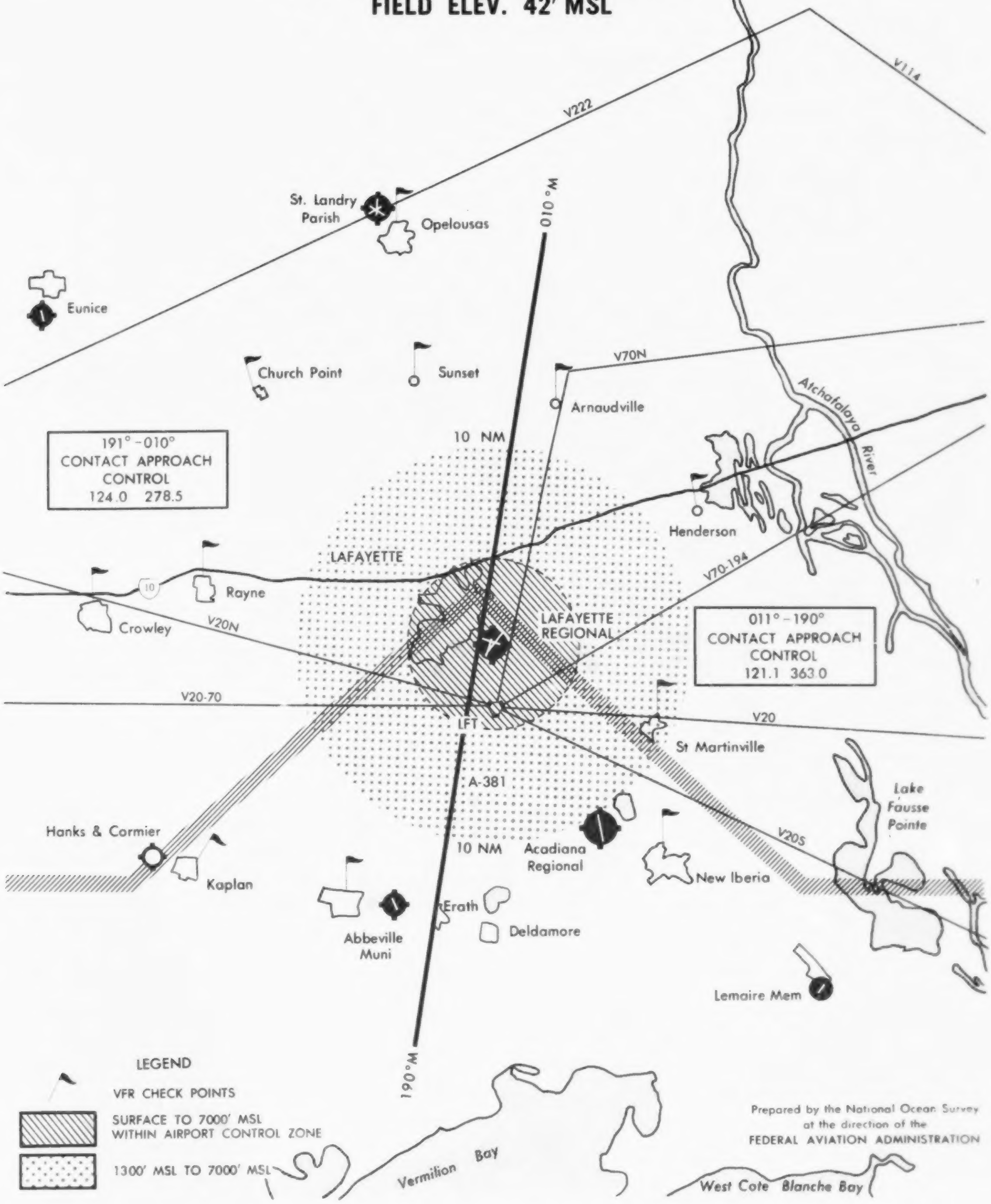
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LAFAYETTE, LOUISIANA
LAFAYETTE REGIONAL AIRPORT
FIELD ELEV. 42′ MSL


V114
V222
St. Landry Parish
Opelousas
010° M
Eunice
Church Point
Sunset
V70N
Arnaudville
Atchafalaya River
10 NM
191° -010°
CONTACT APPROACH
CONTROL
124.0 278.5
Henderson
LAFAYETTE
10
Rayne
V70-194
Crowley
V20N
LAFAYETTE
REGIONAL
011° - 190°
CONTACT APPROACH
CONTROL
121.1 363.0
V20-70
LFT
V20
St Martinville
A-381
Lake Fausse Pointe
Hanks & Cormier
10 NM
Acadiana Regional
V20S
Kaplan
New Iberia
Erath
Abbeville Muni
Deldamore
Lemaire Mem
190° M
Vermilion Bay
West Cote Blanche Bay
LEGEND
VFR CHECK POINTS
SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE
1300′ MSL TO 7000′ MSL

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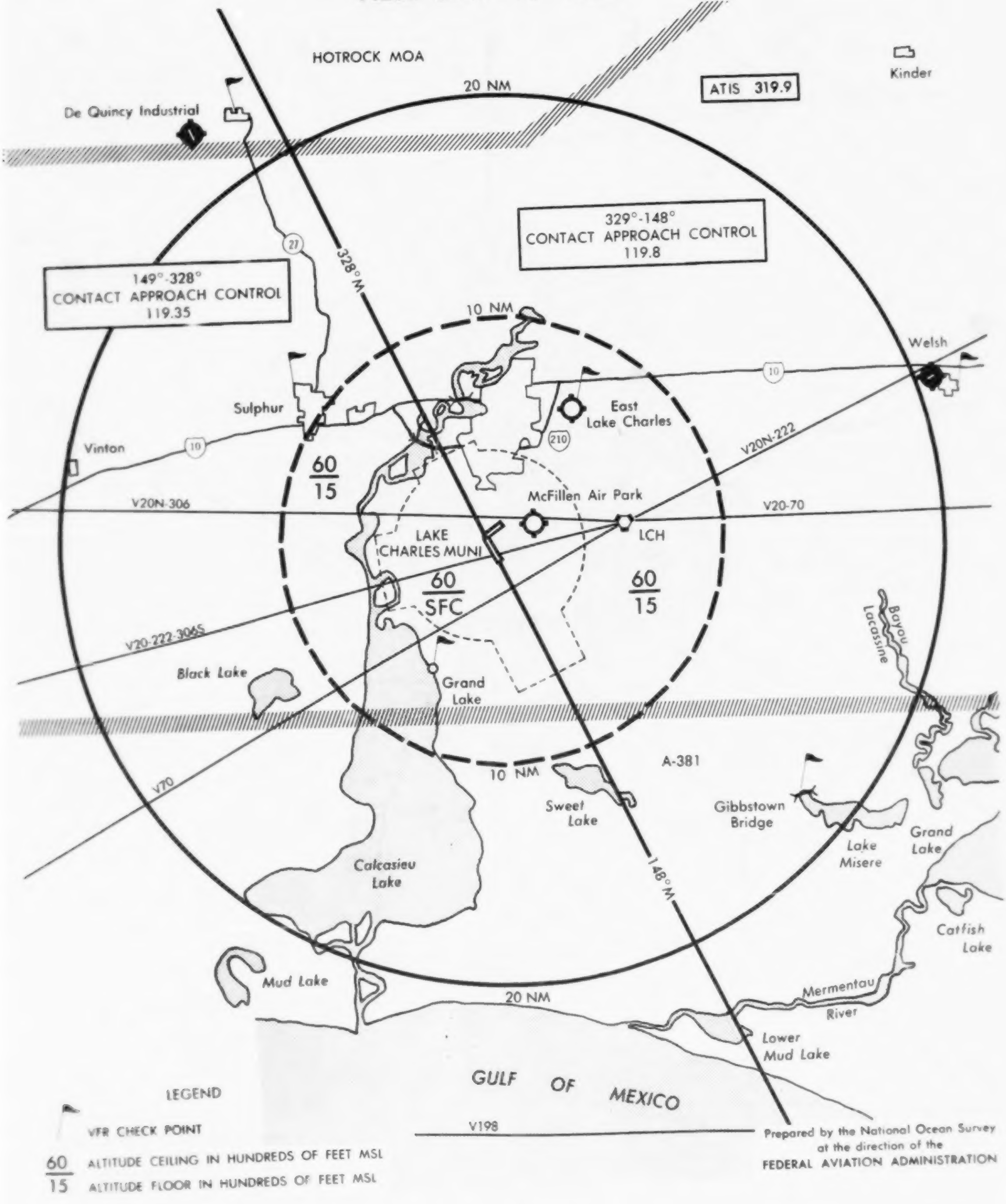
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LAKE CHARLES, LOUISIANA
LAKE CHARLES MUNICIPAL AIRPORT
FIELD ELEV. 16' MSL


HOTROCK MOA
Kinder
20 NM
ATIS 319.9
De Quincy Industrial
329°-148°
CONTACT APPROACH CONTROL
119.8
149°-328°
CONTACT APPROACH CONTROL
119.35
27
328° M
10 NM
Welsh
10
Sulphur
East
Lake Charles
Vinton
10
210
60
15
V20N-222
V20N-306
McFillen Air Park
V20-70
LAKE
CHARLES MUNI
LCH
60
SFC
60
15
Bayou
Lacassine
V20-222-306S
Black Lake
Grand
Lake
A-381
10 NM
V70
Sweet
Lake
Gibbstown
Bridge
Lake
Misere
Grand
Lake
Calcasieu
Lake
148° M
Catfish
Lake
Mud Lake
20 NM
Mermentau
River
Lower
Mud Lake
GULF OF MEXICO
V198
LEGEND
VFR CHECK POINT
60 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
15 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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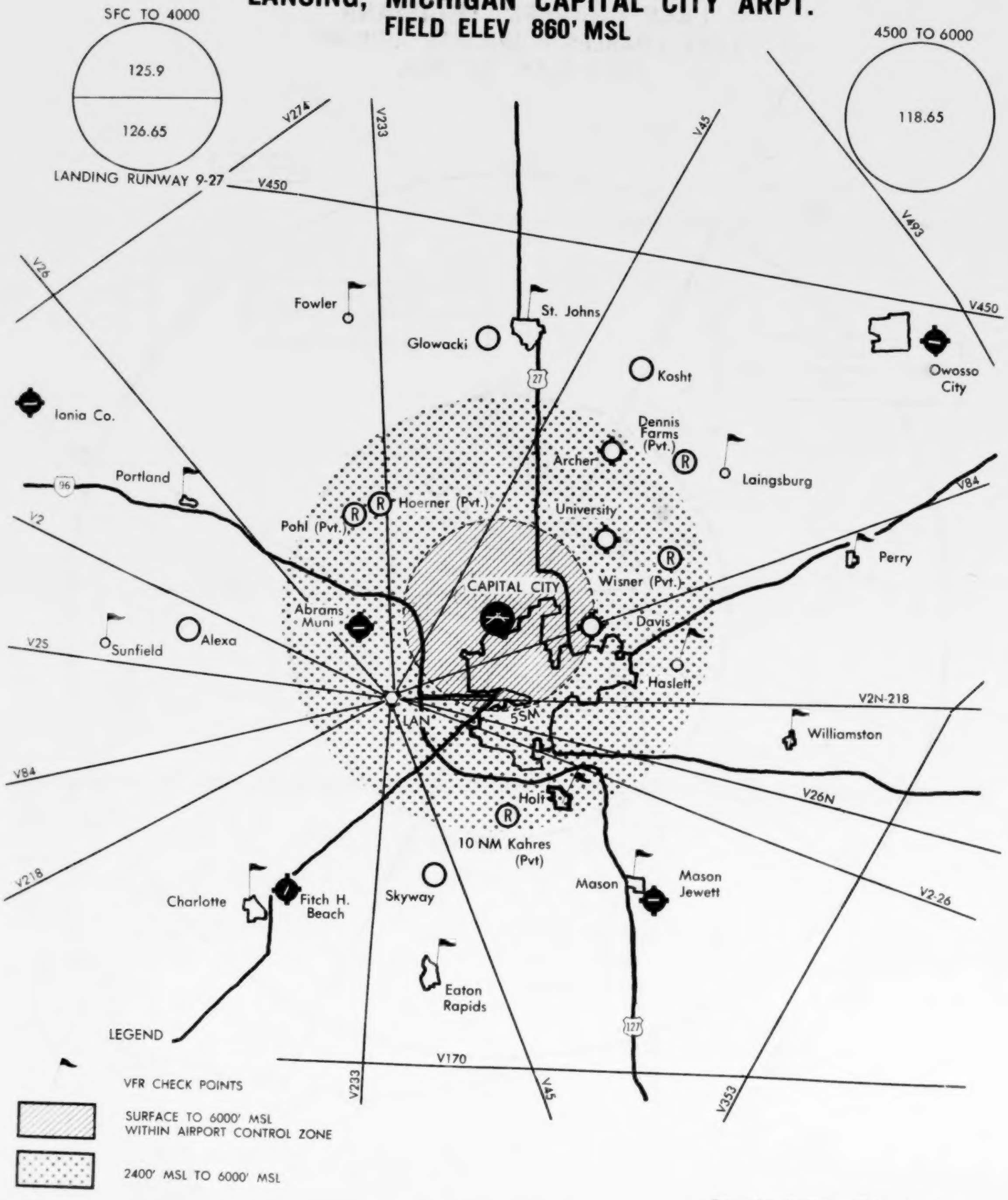
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LANSING, MICHIGAN CAPITAL CITY ARPT.

FIELD ELEV 860' MSL


SFC TO 4000
125.9
126.65
LANDING RUNWAY 9-27
4500 TO 6000
118.65
V274
V233
V45
V450
V493
V26
Fowler
St. Johns
Glowacki
27
Kosht
Owosso City
Ionia Co.
Dennis Farms (Pvt.)
Archer
Laingsburg
Portland
96
Hoerner (Pvt.)
University
V84
V2
Pohl (Pvt.)
Perry
Wisner (Pvt.)
CAPITAL CITY
Abrams Muni
Davis
V25
Sunfield
Alexa
Haslett
V2N-218
LAN
5SM
Williamston
V84
Holt
V26N
10 NM Kahres (Pvt)
V218
Charlotte
Fitch H. Beach
Skyway
Mason
Mason Jewett
V2-26
Eaton Rapids
127
LEGEND
V170
V233
V45
V353
VFR CHECK POINTS
SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE
2400' MSL TO 6000' MSL

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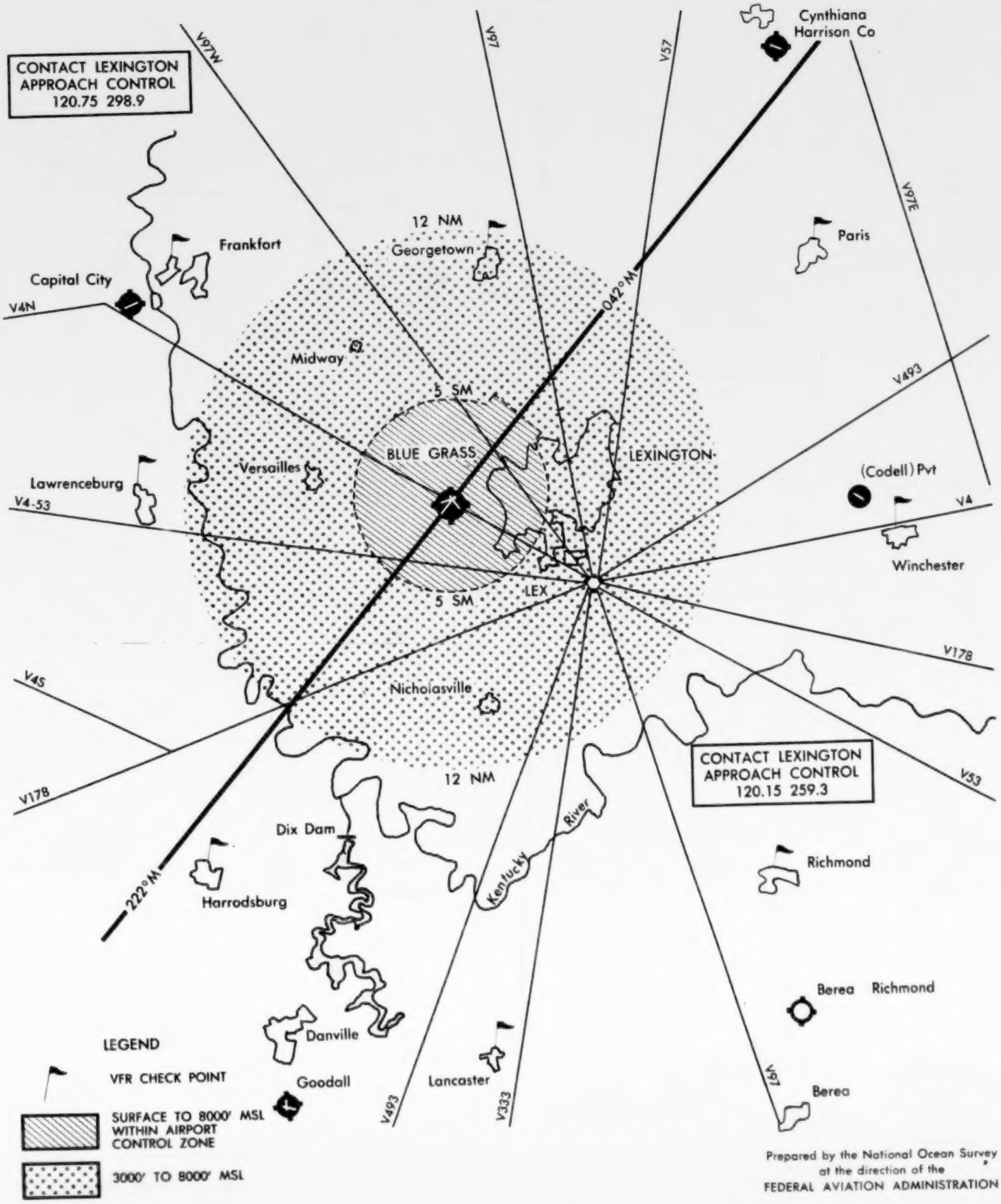
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LEXINGTON, KENTUCKY
BLUE GRASS FIELD
FIELD ELEV. 979' MSL


CONTACT LEXINGTON
APPROACH CONTROL
120.75 298.9
V97W
V97
V57
Cynthiana
Harrison Co
V97E
Paris
12 NM
Georgetown
Frankfort
Capital City
V4N
042°M
Midway
V493
5 SM
BLUE GRASS
LEXINGTON
Versailles
Lawrenceburg
V4-53
(Codell) Pvt
V4
Winchester
LEX
5 SM
V178
V45
Nicholasville
V178
CONTACT LEXINGTON
APPROACH CONTROL
120.15 259.3
V53
12 NM
Dix Dam
Kentucky River
Richmond
222°M
Harrodsburg
Berea Richmond
Danville
LEGEND
VFR CHECK POINT
SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE
3000' TO 8000' MSL
Goodall
Lancaster
V493
V333
V97
Berea

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9 AUG 1979

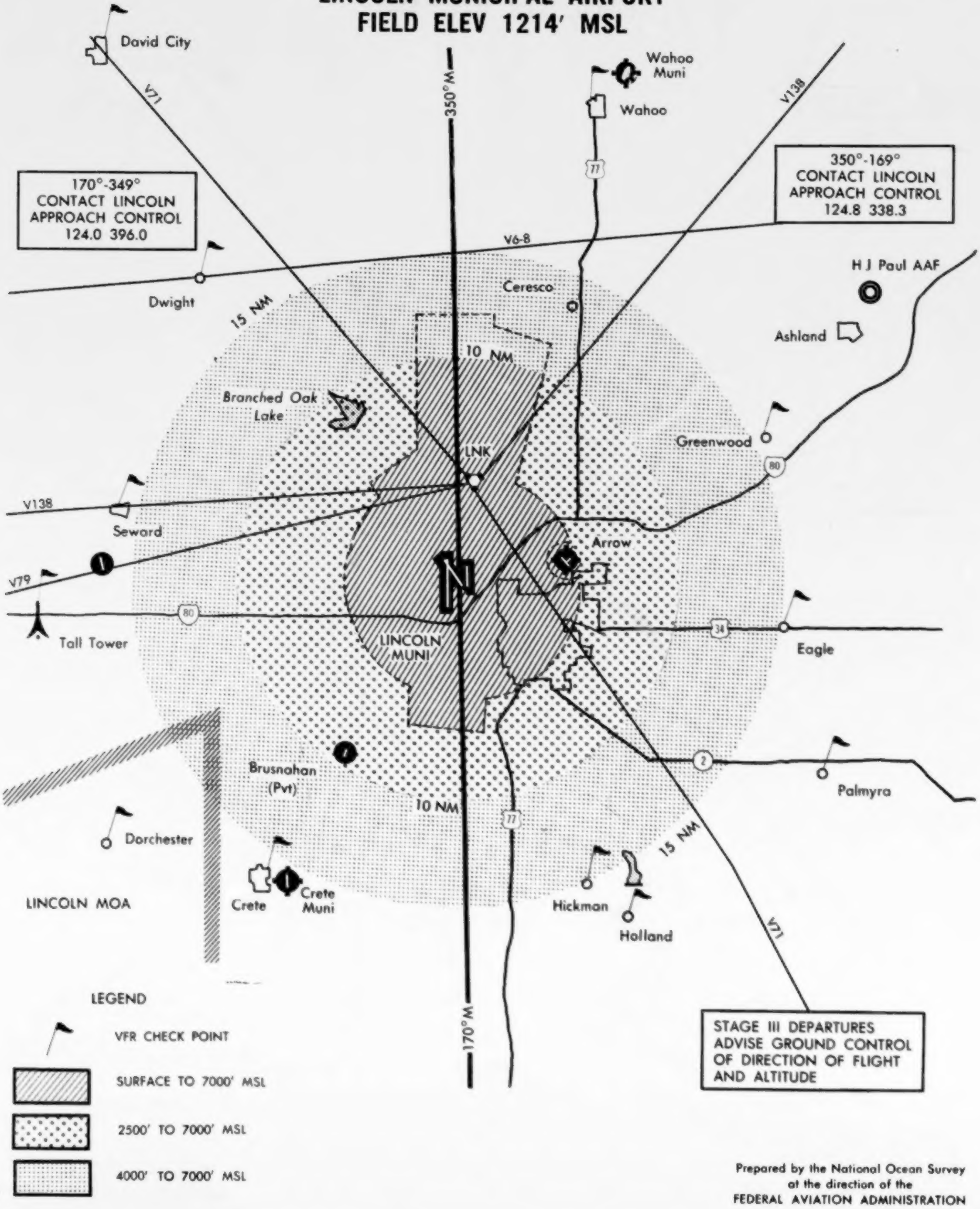
TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

LINCOLN, NEBRASKA

LINCOLN MUNICIPAL AIRPORT

FIELD ELEV 1214′ MSL


David City
V71
350° M
Wahoo Muni
Wahoo
V138
77
Dwight
V6-8
Ceresco
H J Paul AAF
Ashland
15 NM
10 NM
Branched Oak Lake
Greenwood
LNK
80
V138
Seward
Arrow
V79
80
Tall Tower
LINCOLN MUNI
34
Eagle
2
Palmyra
Brusnahan (Pvt)
10 NM
77
15 NM
Dorchester
Crete
Crete Muni
Hickman
Holland
V71
LINCOLN MOA
170° M

170°-349°
CONTACT LINCOLN
APPROACH CONTROL
124.0 396.0

350°-169°
CONTACT LINCOLN
APPROACH CONTROL
124.8 338.3

STAGE III DEPARTURES
ADVISE GROUND CONTROL
OF DIRECTION OF FLIGHT
AND ALTITUDE

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 7000′ MSL
- ▦ 2500′ TO 7000′ MSL
- ░ 4000′ TO 7000′ MSL

Prepared by the National Ocean Survey
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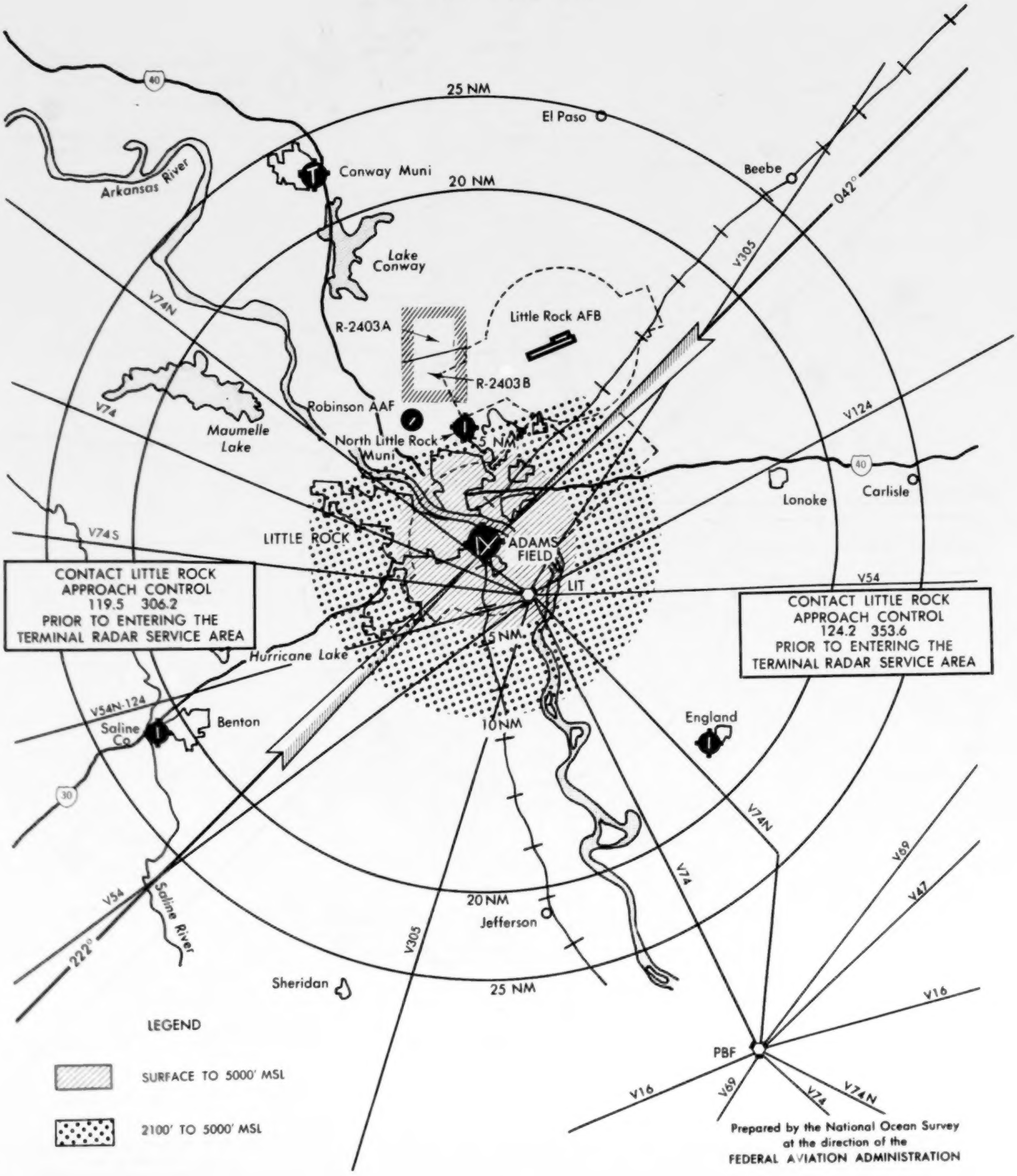
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK, ARKANSAS, ADAMS FIELD
FIELD ELEV. 258′ MSL


40
25 NM
El Paso
Conway Muni
Arkansas River
20 NM
Beebe
042°
V305
Lake Conway
V74N
R-2403A
Little Rock AFB
R-2403B
V74
Maumelle Lake
Robinson AAF
North Little Rock Muni
5 NM
V124
40
Lonoke
Carlisle
V74S
LITTLE ROCK
ADAMS FIELD
LIT
V54
Hurricane Lake
5 NM
V54N-124
Saline Co
Benton
10 NM
England
30
V74N
V69
V74
V47
V54
Saline River
20 NM
Jefferson
V305
222°
Sheridan
25 NM
V16
PBF
V16
V69
V74
V74N
LEGEND
SURFACE TO 5000′ MSL
2100′ TO 5000′ MSL

CONTACT LITTLE ROCK
APPROACH CONTROL
119.5 306.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT LITTLE ROCK
APPROACH CONTROL
124.2 353.6
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

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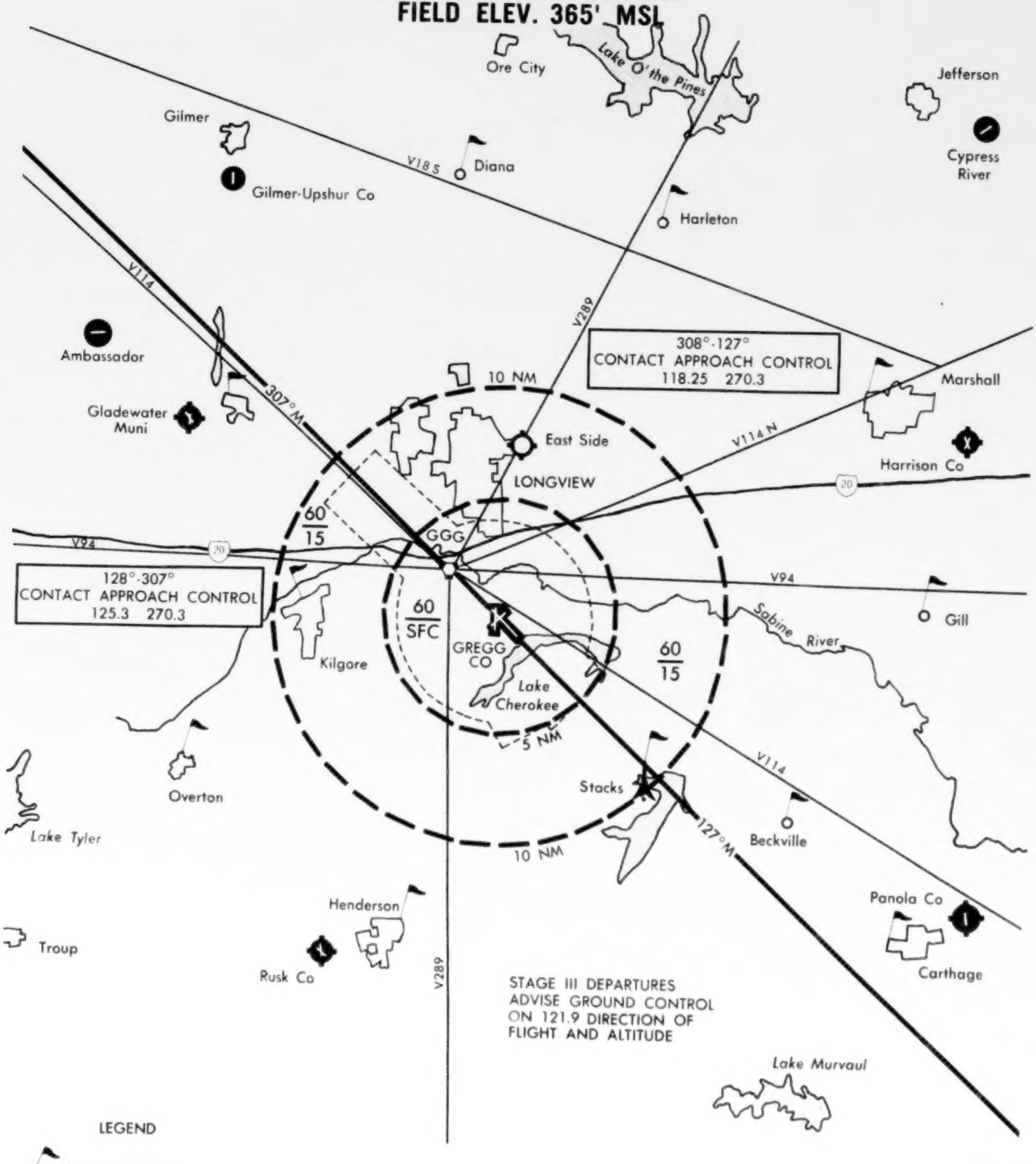
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LONGVIEW, TEXAS
GREGG COUNTY AIRPORT
FIELD ELEV. 365' MSL


Lake O' the Pines
Ore City
Jefferson
Gilmer
Cypress River
V185
Diana
Gilmer-Upshur Co
Harleton
V114
V289
Ambassador
308°-127°
CONTACT APPROACH CONTROL
118.25 270.3
Marshall
307° M
10 NM
Gladewater Muni
East Side
V114 N
Harrison Co
LONGVIEW
20
60
15
GGG
V94
20
128°-307°
CONTACT APPROACH CONTROL
125.3 270.3
V94
Gill
60
SFC
Sabine River
GREGG CO
60
15
Kilgore
Lake Cherokee
5 NM
V114
Overton
Stacks
Lake Tyler
Beckville
127° M
10 NM
Henderson
Panola Co
Troup
Carthage
Rusk Co
V289
Lake Murvaul

STAGE III DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 DIRECTION OF
FLIGHT AND ALTITUDE

LEGEND

VFR CHECKPOINT

$\frac{60}{15}$ ALTITUDE CEILING IN HUNDREDS OF FEET MSL
ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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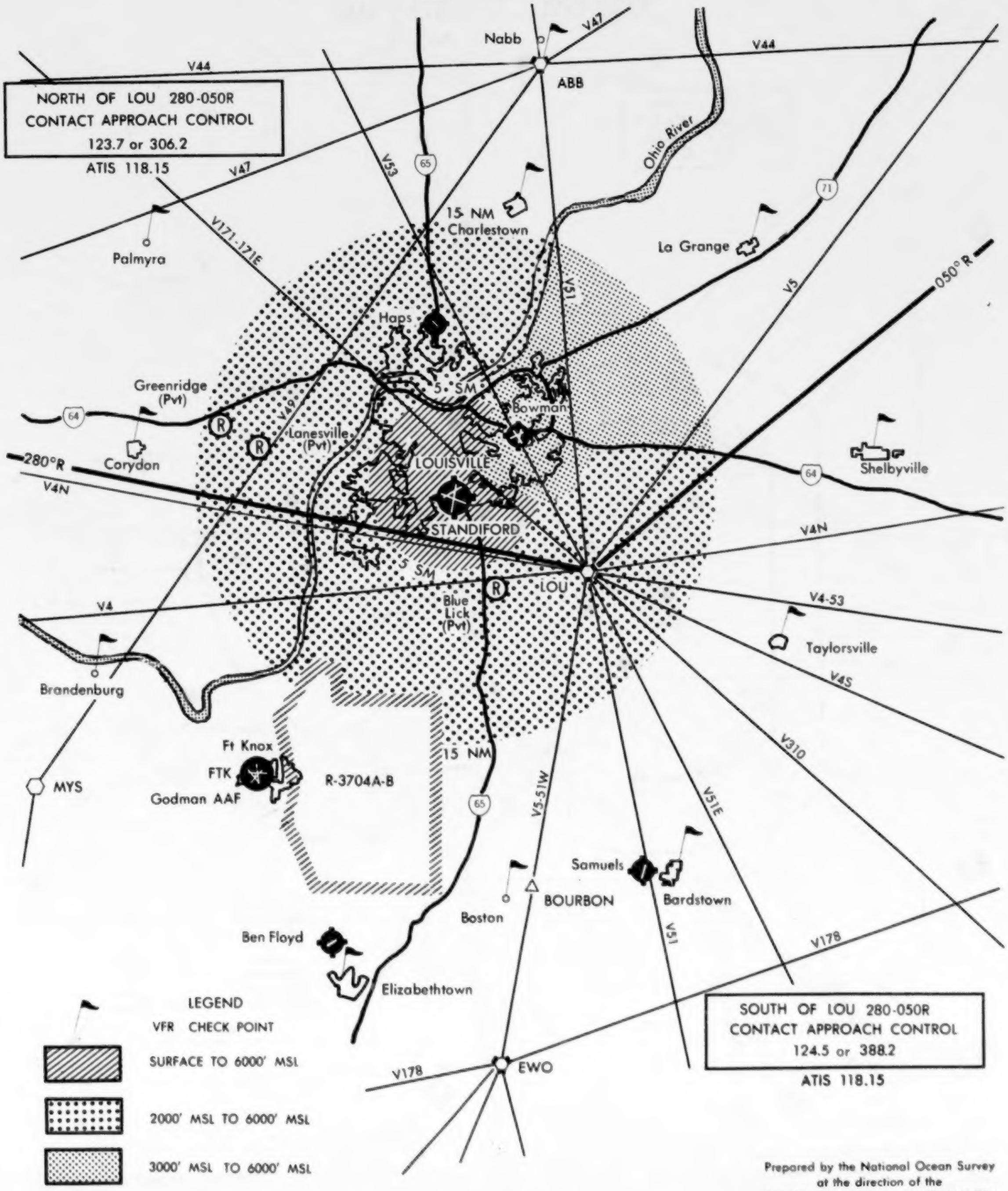
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY, STANDIFORD AIRPORT
FIELD ELEV 497' MSL


Nabb
V47
V44
ABB
V44
V53
65
Ohio River
71
15 NM
Charlestown
V47
Palmyra
V171-171E
La Grange
V5
050° R
V51
Haps
Greenridge
(Pvt)
64
5 SM
Bowman
R
R
V49
Lanesville
(Pvt)
Corydon
280° R
V4N
LOUISVILLE
64
Shelbyville
STANDIFORD
V4N
5 SM
R
LOU
Blue
Lick
(Pvt)
V4
V4-53
Taylorsville
Brandenburg
V45
V310
Ft Knox
FTK
Godman AAF
15 NM
R-3704A-B
MYS
65
V5-51W
V51E
Samuels
Bardstown
BOURBON
Boston
V51
Ben Floyd
V178
Elizabethtown
V178
EWO

NORTH OF LOU 280-050R
CONTACT APPROACH CONTROL
123.7 or 306.2
ATIS 118.15

SOUTH OF LOU 280-050R
CONTACT APPROACH CONTROL
124.5 or 388.2
ATIS 118.15

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 6000' MSL
▦	2000' MSL TO 6000' MSL
░	3000' MSL TO 6000' MSL

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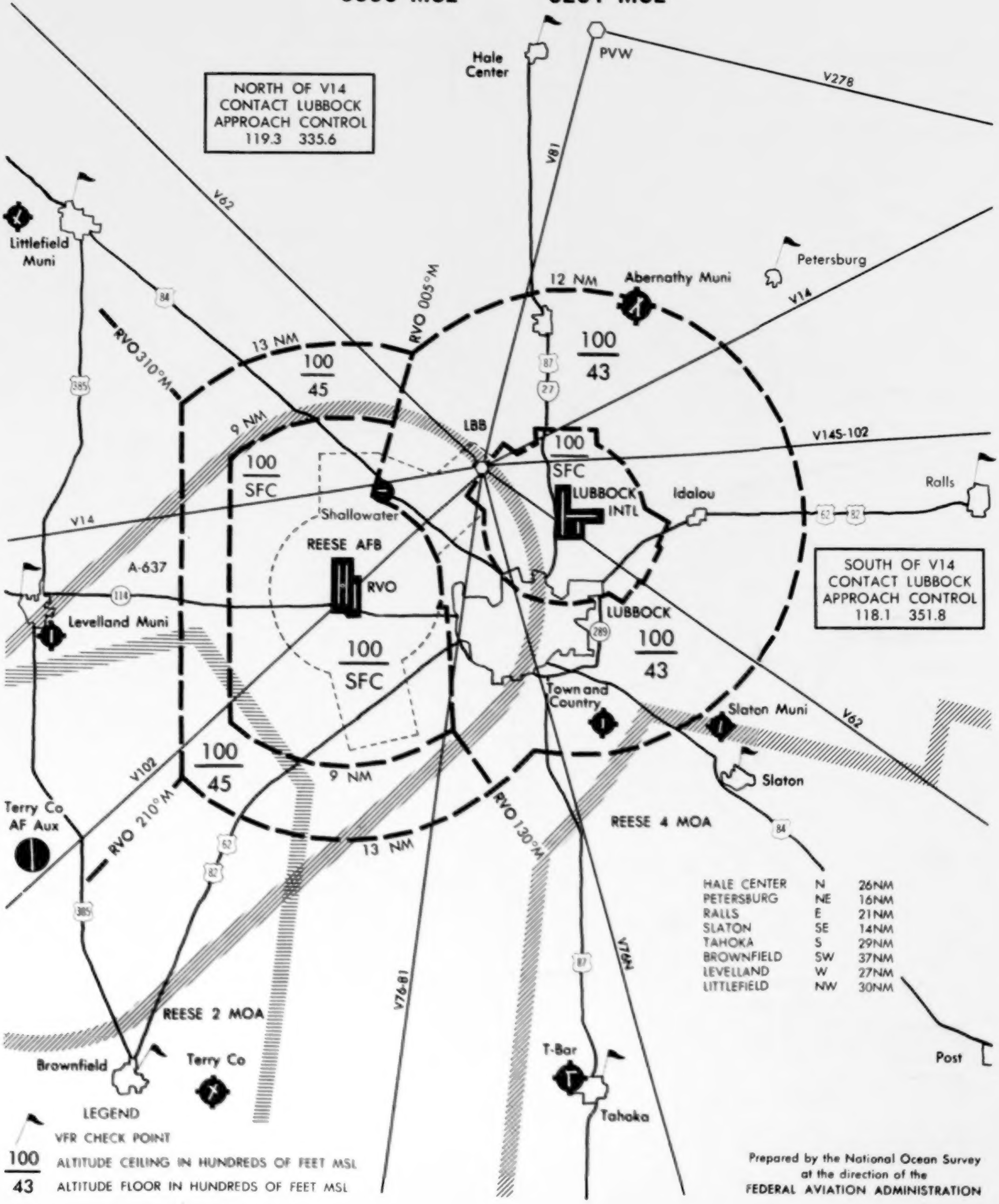
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LUBBOCK, TEXAS
REESE AFB - LUBBOCK INTL
3338' MSL 3281' MSL


Hale Center
PVW
V278
V81
V62
Littlefield Muni
84
385
RVO 310°M
RVO 005°M
13 NM
12 NM
Abernathy Muni
Petersburg
V14
100
45
100
43
87
27
9 NM
LBB
100
SFC
V14S-102
Ralls
100
SFC
Shallowater
LUBBOCK INTL
Idalou
62
82
V14
REESE AFB
RVO
A-637
114
Levelland Muni
LUBBOCK
289
100
43
100
SFC
Town and Country
Slaton Muni
V62
Slaton
V102
100
45
9 NM
RVO 210°M
RVO 130°M
Terry Co AF Aux
13 NM
REESE 4 MOA
62
82
84
385
87
V76-81
V76N
REESE 2 MOA
Brownfield
Terry Co
T-Bar
Tahoka
Post

NORTH OF V14
CONTACT LUBBOCK
APPROACH CONTROL
119.3 335.6

SOUTH OF V14
CONTACT LUBBOCK
APPROACH CONTROL
118.1 351.8

HALE CENTER	N	26NM
PETERSBURG	NE	16NM
RALLS	E	21NM
SLATON	SE	14NM
TAHOKA	S	29NM
BROWNFIELD	SW	37NM
LEVELLAND	W	27NM
LITTLEFIELD	NW	30NM

LEGEND

VFR CHECK POINT

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL

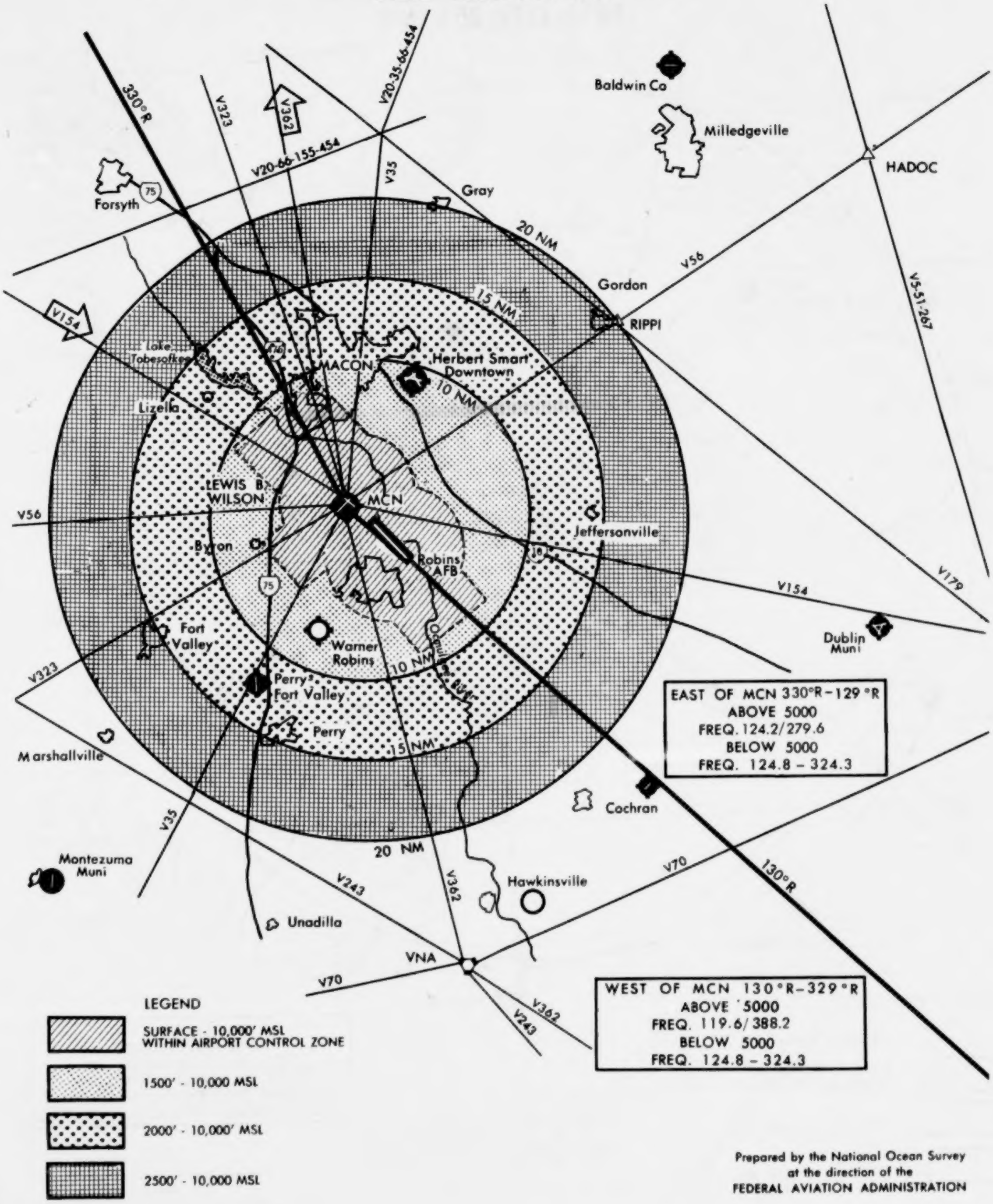
43 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MACON, GEORGIA, LEWIS B. WILSON AIRPORT
FIELD ELEV. 354′ MSL


330°R
V323
V362
V20-35-66-454
V20-66-155-454
V35
Baldwin Co
Milledgeville
HADOC
Forsyth
75
Gray
20 NM
V56
Gordon
V5-51-267
V154
15 NM
RIPPI
Lake Tobesofkee
MACON
Herbert Smart Downtown
10 NM
Lizella
LEWIS B. WILSON
MCN
V56
Jeffersonville
Byron
Robins AFB
75
V154
V179
Fort Valley
Warner Robins
Dublin Muni
V323
10 NM
Perry-Fort Valley
Perry
15 NM
Marshallville
Cochran
V35
20 NM
Montezuma Muni
V243
V362
Hawkinsville
V70
130°R
Unadilla
VNA
V70
V362
V243
LEGEND
SURFACE - 10,000′ MSL WITHIN AIRPORT CONTROL ZONE
1500′ - 10,000 MSL
2000′ - 10,000′ MSL
2500′ - 10,000 MSL

EAST OF MCN 330°R–129°R
ABOVE 5000
FREQ. 124.2/279.6
BELOW 5000
FREQ. 124.8 – 324.3

WEST OF MCN 130°R–329°R
ABOVE 5000
FREQ. 119.6/388.2
BELOW 5000
FREQ. 124.8 – 324.3

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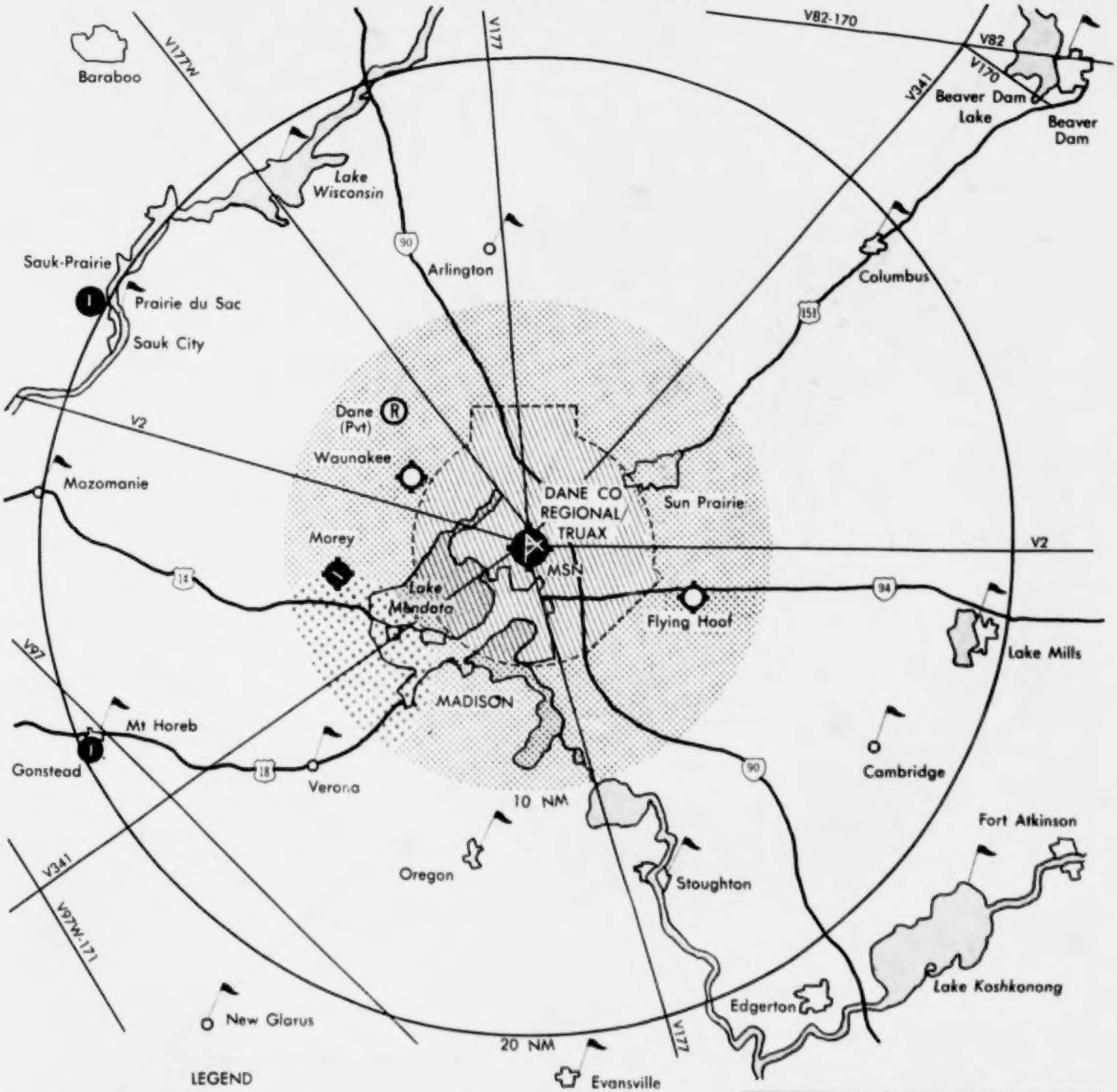
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MADISON, WISCONSIN
DANE CO. REGIONAL/TRUAX
FIELD ELEV 862′ MSL


Baraboo
V177W
V177
V82-170
V82
V170
V341
Beaver Dam Lake
Beaver Dam
Lake Wisconsin
90
Arlington
Sauk-Prairie
Prairie du Sac
Sauk City
Columbus
151
Dane (Pvt)
Waunakee
V2
Mazomanie
DANE CO REGIONAL/ TRUAX
MSN
Sun Prairie
Morey
14
Lake Mendota
94
Flying Hoof
Lake Mills
MADISON
V97
Mt Horeb
Gonstead
18
Verona
Cambridge
10 NM
Fort Atkinson
V341
Oregon
Stoughton
V97W-171
Lake Koshkonong
Edgerton
New Glarus
20 NM
Evansville

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
- ░ 2700′ MSL TO 6000′ MSL
- ▒ 3500′ MSL TO 6000′ MSL

ATIS 115.5/126.1
APPROACH CONTROL
120.1/350.3 E OF ILS 360-180
124.0/396.0 W OF ILS 360-180
DEPARTURE FREQUENCIES/TRANSPONDER
CODES ASSIGNED BY GROUND CONTROL

STAGE THREE DEPARTURES
ADVISE GROUND CONTROL ON
121.9 OF DIRECTION OF FLIGHT
AND ALTITUDE

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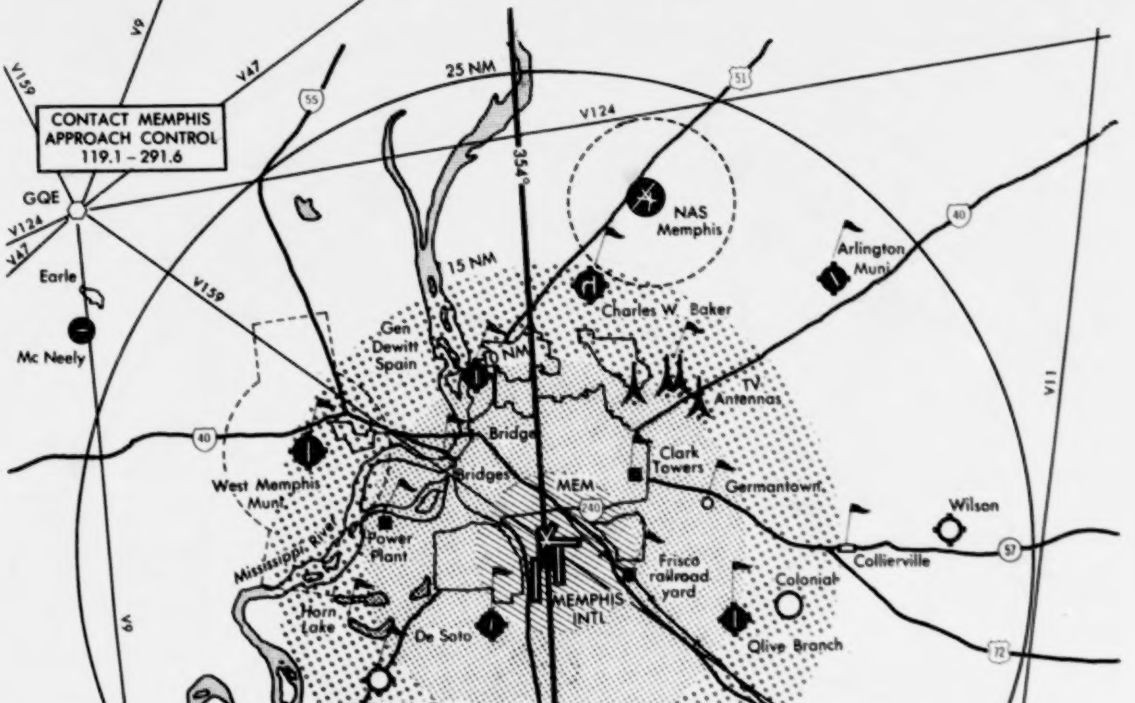
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MEMPHIS, TENNESSEE
MEMPHIS INTERNATIONAL AIRPORT
FIELD ELEV. 332′ MSL


CONTACT MEMPHIS APPROACH CONTROL 119.1 – 291.6
GQE
V9
V47
V159
V124
V47
Earle
Mc Neely
55
25 NM
354°
51
V124
NAS Memphis
40
Arlington Muni
15 NM
Charles W. Baker
Gen Dewitt Spain
10 NM
TV Antennas
Bridge
Bridges
Clark Towers
Germantown
40
West Memphis Muni
MEM
240
Wilson
Power Plant
Mississippi River
Frisco railroad yard
Colonial
Collierville
57
MEMPHIS INTL
Horn Lake
De Soto
Olive Branch
72
V11
V9
Twinkle Town
10 NM
78
Holly Springs-Marshall Co
Hernando
15 NM
V16
V94
HLI
V54-94N
V54
Holly Springs
V159
61
Arkabutla Reservoir
V16
55
Coldwater
V94N
25 NM
Senatobia
CONTACT MEMPHIS APPROACH CONTROL 125.8 – 338.3
174°
V11W-94
V11
COLUMBUS 3 MOA
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL WITHIN AIRPORT CONTROL ZONE
2000′ TO 8000′ MSL
3000′ TO 8000′ MSL

Prepared by the National Ocean Survey
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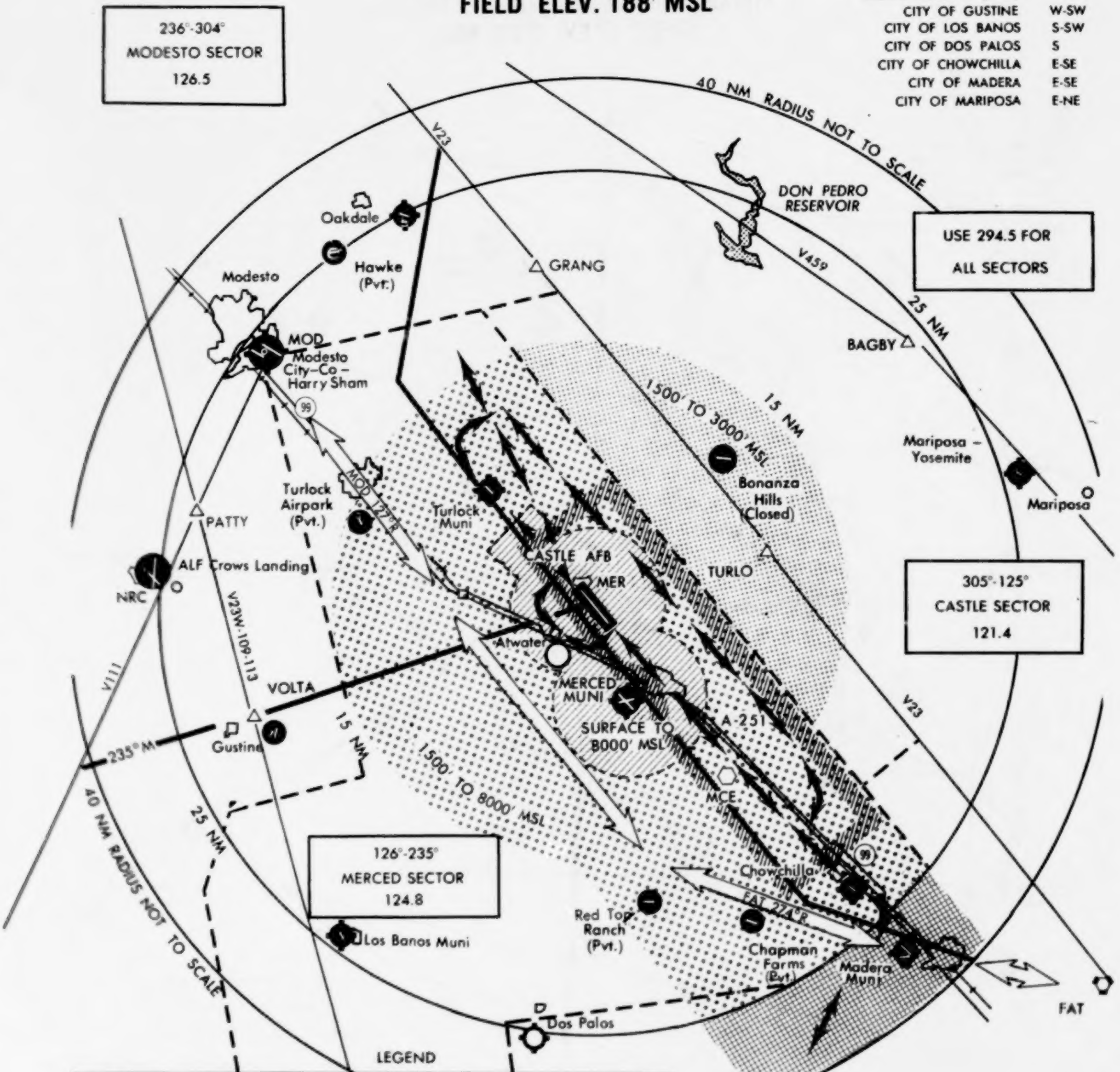
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MERCED, CALIF., CASTLE AFB
FIELD ELEV. 188′ MSL

DON PEDRO RESERVOIR	N
CITY OF OAKDALE	NW
CITY OF MODESTO	W-NW
CROWS LANDING (NAS)	W
CITY OF GUSTINE	W-SW
CITY OF LOS BANOS	S-SW
CITY OF DOS PALOS	S
CITY OF CHOWCHILLA	E-SE
CITY OF MADERA	E-SE
CITY OF MARIPOSA	E-NE


236°-304°
MODESTO SECTOR
126.5
USE 294.5 FOR
ALL SECTORS
305°-125°
CASTLE SECTOR
121.4
126°-235°
MERCED SECTOR
124.8
40 NM RADIUS NOT TO SCALE
25 NM
15 NM
DON PEDRO RESERVOIR
V23
V459
V111
V23W-109-113
Oakdale
Hawke (Pvt.)
GRANG
BAGBY
Modesto
MOD
Modesto City-Co - Harry Sham
99
MOD 127° R
Turlock Airpark (Pvt.)
Turlock Muni
1500′ TO 3000′ MSL
Bonanza Hills (Closed)
Mariposa - Yosemite
Mariposa
PATTY
ALF Crows Landing
NRC
CASTLE AFB
MER
TURLO
Atwater
MERCED MUNI
SURFACE TO 8000′ MSL
A-251
VOLTA
Gustine
235°M
1500′ TO 8000′ MSL
MCE
Chowchilla
FAT 274° R
Red Top Ranch (Pvt.)
Chapman Farms (Pvt.)
Madera Muni
Los Banos Muni
Dos Palos
FAT

LEGEND

TERMINAL RADAR SERVICE AREAS

▨ SURFACE TO 8000′ · ░ 1500′ TO 3000′ · ⁘ 1500′ TO 8000′

CONVENTIONAL AIRCRAFT 25 NM
JET AIRCRAFT 40 NM — CONTACT OR CALL-UP AREAS

▦ CONVENTIONAL AIRCRAFT EXTENDED CALL-UP AREA

MOD 127° R/ FAT 274° R
MRA 2000 FT
MAA 8000 FT
RADAR VECTORING AVAILABLE — ⇔ PREFERENTIAL ROUTE

⟷ HIGH DENSITY MILITARY TRAFFIC ROUTES

RECOMMENDED TO AVOID CASTLE AFB AND MERCED MUNICIPAL AIRPORT. INTENSIVE B52 AND KC135 JET TRAINING IN CASTLE AFB TERMINAL AREA 0800-2300L MON-FRI.

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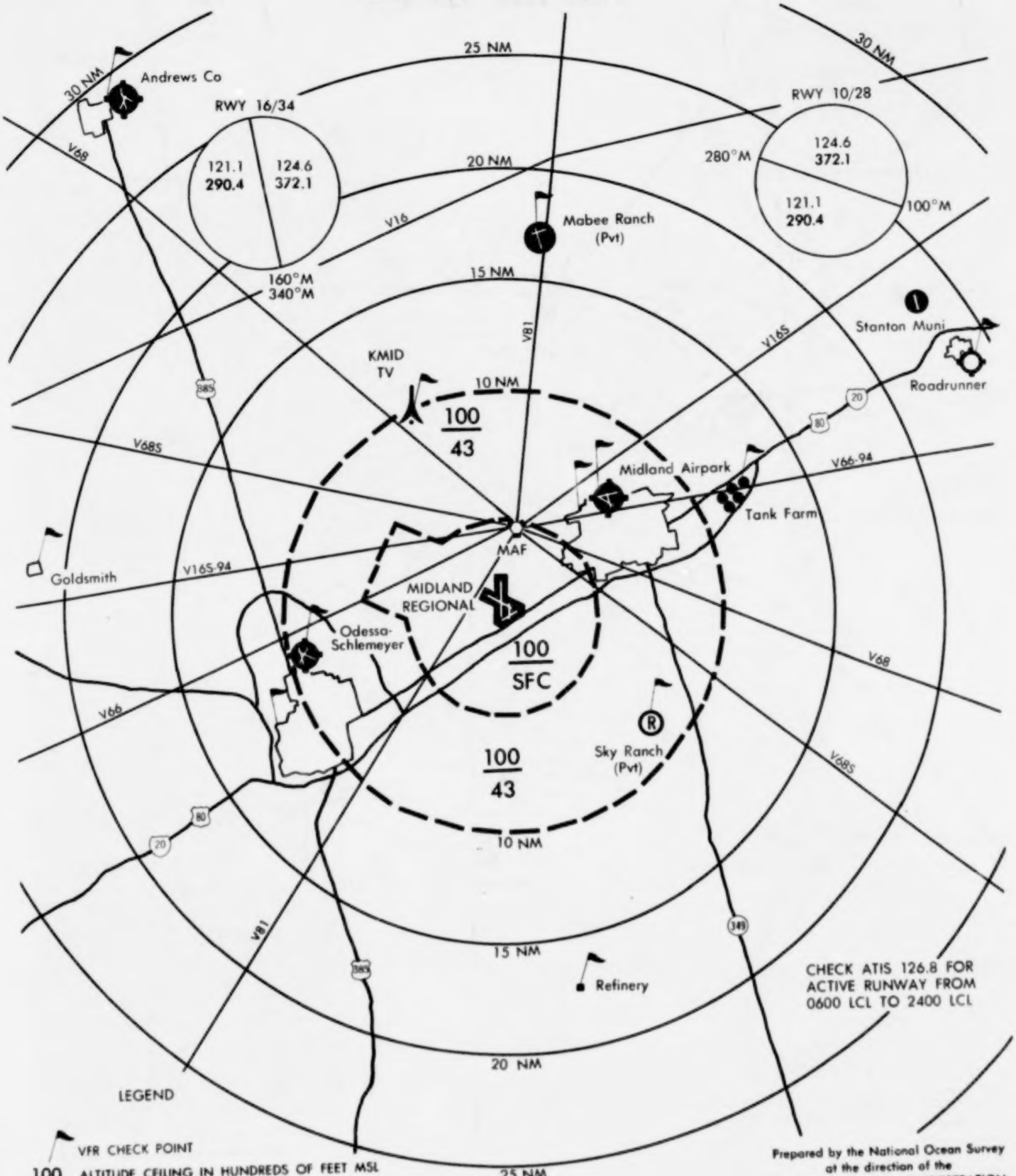
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MIDLAND, TEXAS
MIDLAND REGIONAL AIRPORT
FIELD ELEV 2871' MSL


25 NM
30 NM
30 NM
Andrews Co
RWY 16/34
121.1
290.4
124.6
372.1
160°M
340°M
20 NM
V68
V16
Mabee Ranch
(Pvt)
RWY 10/28
280°M
124.6
372.1
121.1
290.4
100°M
15 NM
V81
Stanton Muni
Roadrunner
V16S
KMID
TV
10 NM
100
43
385
20
80
V68S
Midland Airpark
V66-94
Tank Farm
MAF
Goldsmith
V16S-94
MIDLAND
REGIONAL
Odessa-
Schlemeyer
100
SFC
V68
V66
R
Sky Ranch
(Pvt)
100
43
V68S
10 NM
80
20
349
V81
15 NM
385
Refinery
20 NM
25 NM

CHECK ATIS 126.8 FOR ACTIVE RUNWAY FROM 0600 LCL TO 2400 LCL

LEGEND

VFR CHECK POINT

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL

43 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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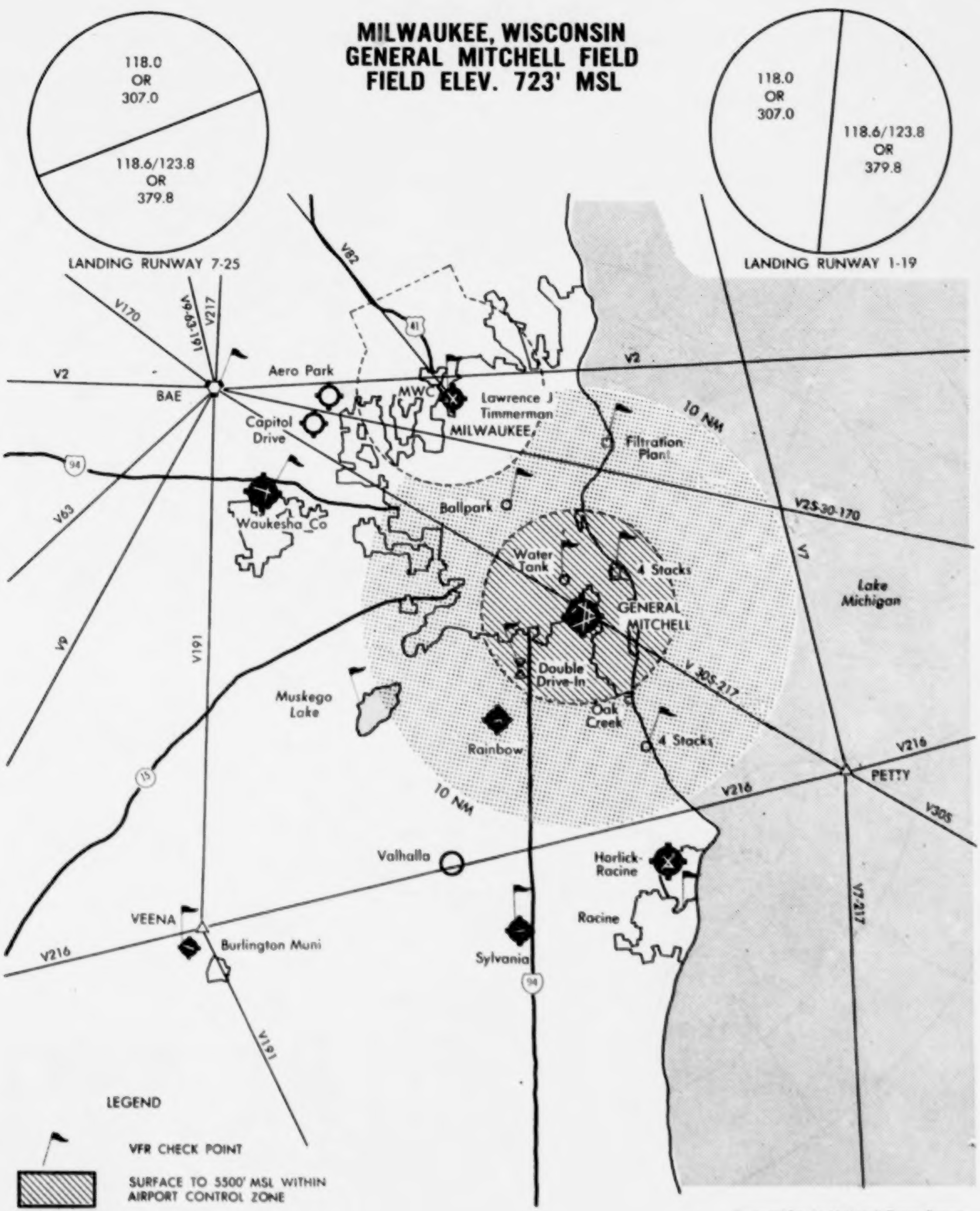
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MILWAUKEE, WISCONSIN
GENERAL MITCHELL FIELD
FIELD ELEV. 723' MSL


118.0
OR
307.0
118.6/123.8
OR
379.8
LANDING RUNWAY 7-25
118.0
OR
307.0
118.6/123.8
OR
379.8
LANDING RUNWAY 1-19
V82
41
V170
V9-63-191
V217
V2
BAE
Aero Park
MWC
Lawrence J Timmerman
MILWAUKEE
Capitol Drive
V2
10 NM
Filtration Plant
94
Waukesha Co
V63
Ballpark
V25-30-170
Water Tank
4 Stacks
V7
Lake Michigan
GENERAL MITCHELL
V9
V191
Double Drive-In
V 305-217
Muskego Lake
Oak Creek
4 Stacks
Rainbow
V216
PETTY
15
10 NM
V216
V305
Valhalla
Harlick-Racine
V7-217
Racine
VEENA
V216
Burlington Muni
Sylvania
94
V191

LEGEND

⚑ VFR CHECK POINT

▨ SURFACE TO 5500' MSL WITHIN AIRPORT CONTROL ZONE

░ 3000' MSL TO 5500' MSL

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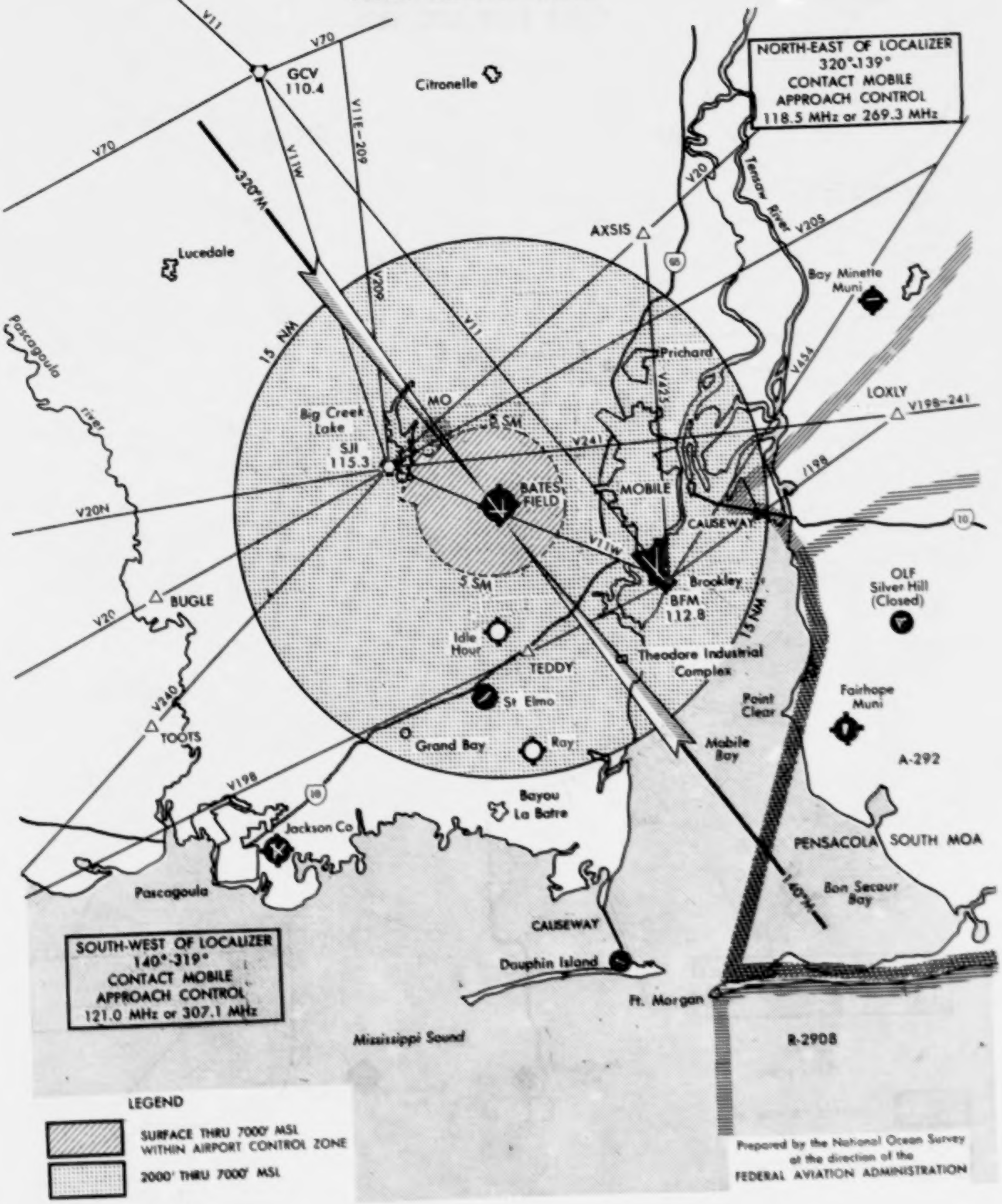
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MOBILE, ALABAMA, BATES FIELD
FIELD ELEV 218' MSL


NORTH-EAST OF LOCALIZER
320°-139°
CONTACT MOBILE
APPROACH CONTROL
118.5 MHz or 269.3 MHz
V11
V70
GCV
110.4
V11E-209
V11W
320°M
Citronelle
V20
Tensaw River
V205
AXSIS
65
Lucedale
V200
Bay Minette
Muni
Pascagoula river
15 NM
V11
Prichard
V454
V425
LOXLY
V198-241
MO
Big Creek
Lake
SJI
115.3
5 SM
V241
V198
BATES
FIELD
MOBILE
V20N
CAUSEWAY
10
V11W
Brookley
BFM
112.8
15 NM
OLF
Silver Hill
(Closed)
BUGLE
V20
Idle
Hour
TEDDY
Theodore Industrial
Complex
Point
Clear
Fairhope
Muni
V240
St Elmo
TOOTS
Grand Bay
Ray
Mobile
Bay
A-292
V198
10
Bayou
La Batre
Jackson Co
PENSACOLA SOUTH MOA
140°M
Pascagoula
Bon Secour
Bay
CAUSEWAY
SOUTH-WEST OF LOCALIZER
140°-319°
CONTACT MOBILE
APPROACH CONTROL
121.0 MHz or 307.1 MHz
Dauphin Island
Ft. Morgan
Mississippi Sound
R-2908
LEGEND
▨ SURFACE THRU 7000' MSL WITHIN AIRPORT CONTROL ZONE
▒ 2000' THRU 7000' MSL
Prepared by the National Ocean Survey
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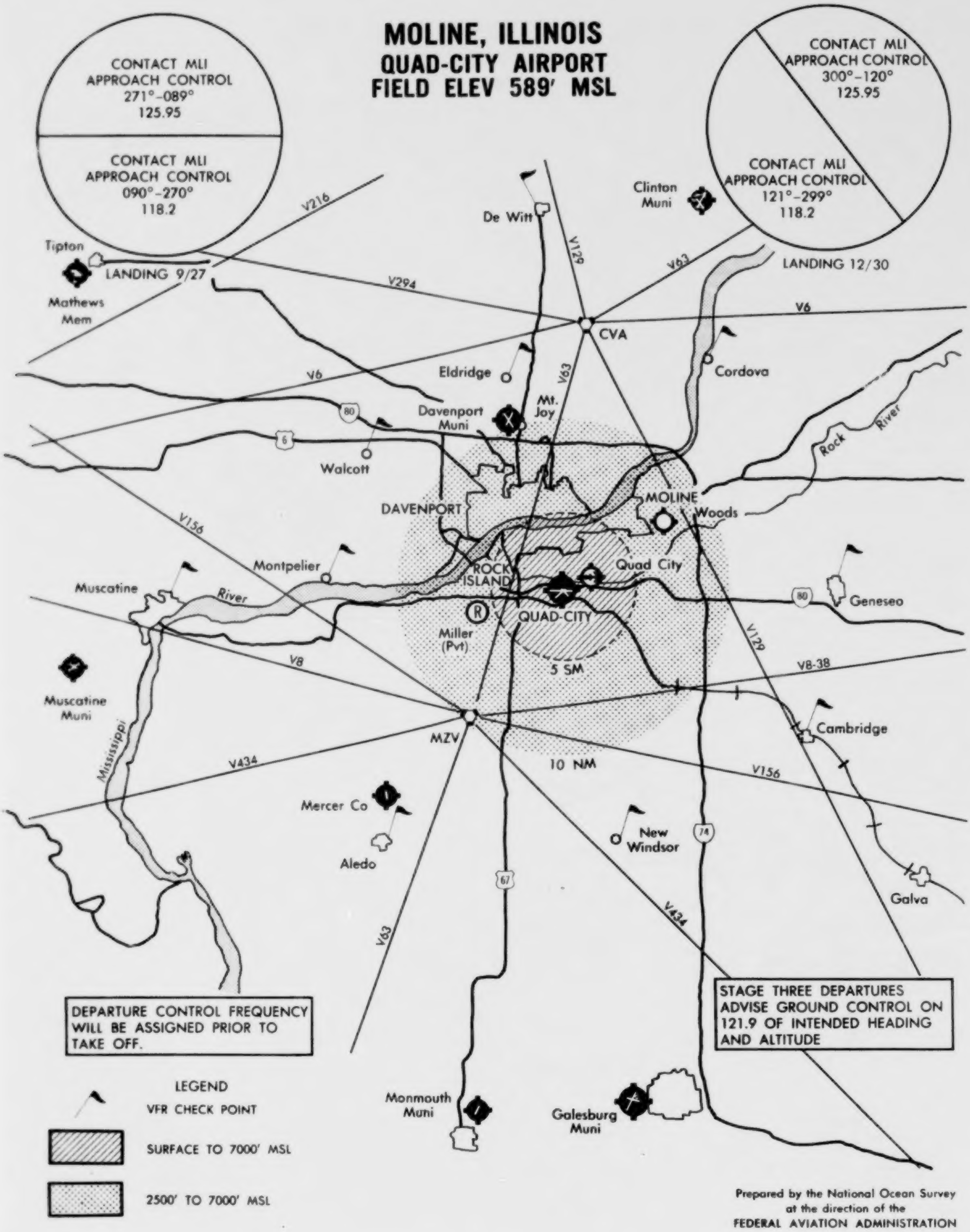
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MOLINE, ILLINOIS
QUAD-CITY AIRPORT
FIELD ELEV 589′ MSL


CONTACT MLI APPROACH CONTROL 271°-089° 125.95
CONTACT MLI APPROACH CONTROL 090°-270° 118.2
LANDING 9/27
CONTACT MLI APPROACH CONTROL 300°-120° 125.95
CONTACT MLI APPROACH CONTROL 121°-299° 118.2
LANDING 12/30
Tipton
Mathews Mem
V216
V294
De Witt
V129
Clinton Muni
V63
V6
CVA
Eldridge
Cordova
V6
80
Davenport Muni
Mt. Joy
6
Walcott
Rock River
DAVENPORT
MOLINE
Woods
V156
Montpelier
ROCK ISLAND
Quad City
Muscatine
River
R
QUAD-CITY
Miller (Pvt)
80
Geneseo
V8
5 SM
V8-38
Muscatine Muni
MZV
Cambridge
Mississippi
V434
10 NM
V156
Mercer Co
Aledo
New Windsor
74
67
Galva
V63
V434
V129
Monmouth Muni
Galesburg Muni

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF.

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDED HEADING AND ALTITUDE

LEGEND
- VFR CHECK POINT
- ▨ SURFACE TO 7000′ MSL
- ░ 2500′ TO 7000′ MSL

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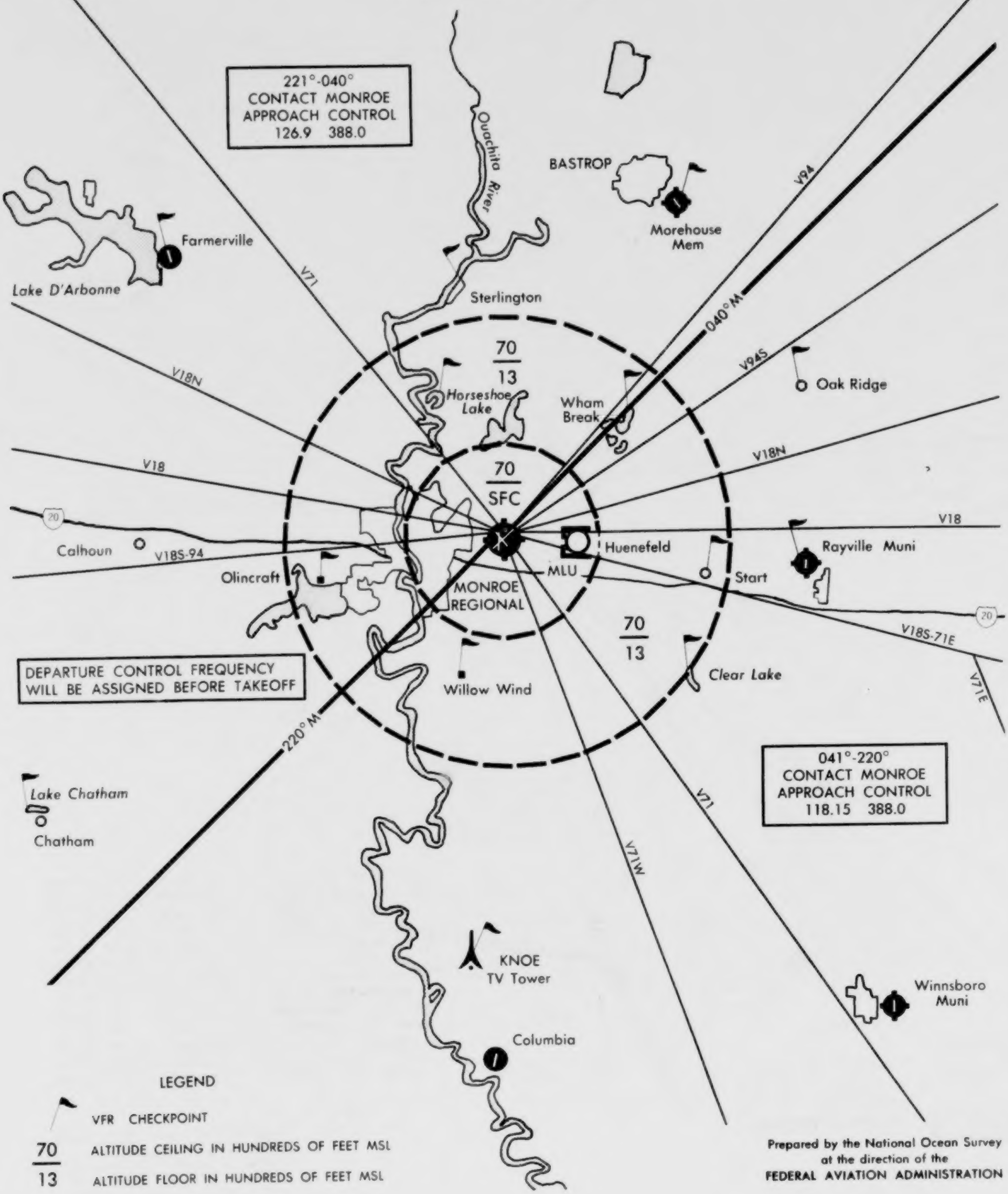
13 JUL 1978

MONROE, LOUISIANA
MONROE REGIONAL AIRPORT
FIELD ELEV 79′ MSL

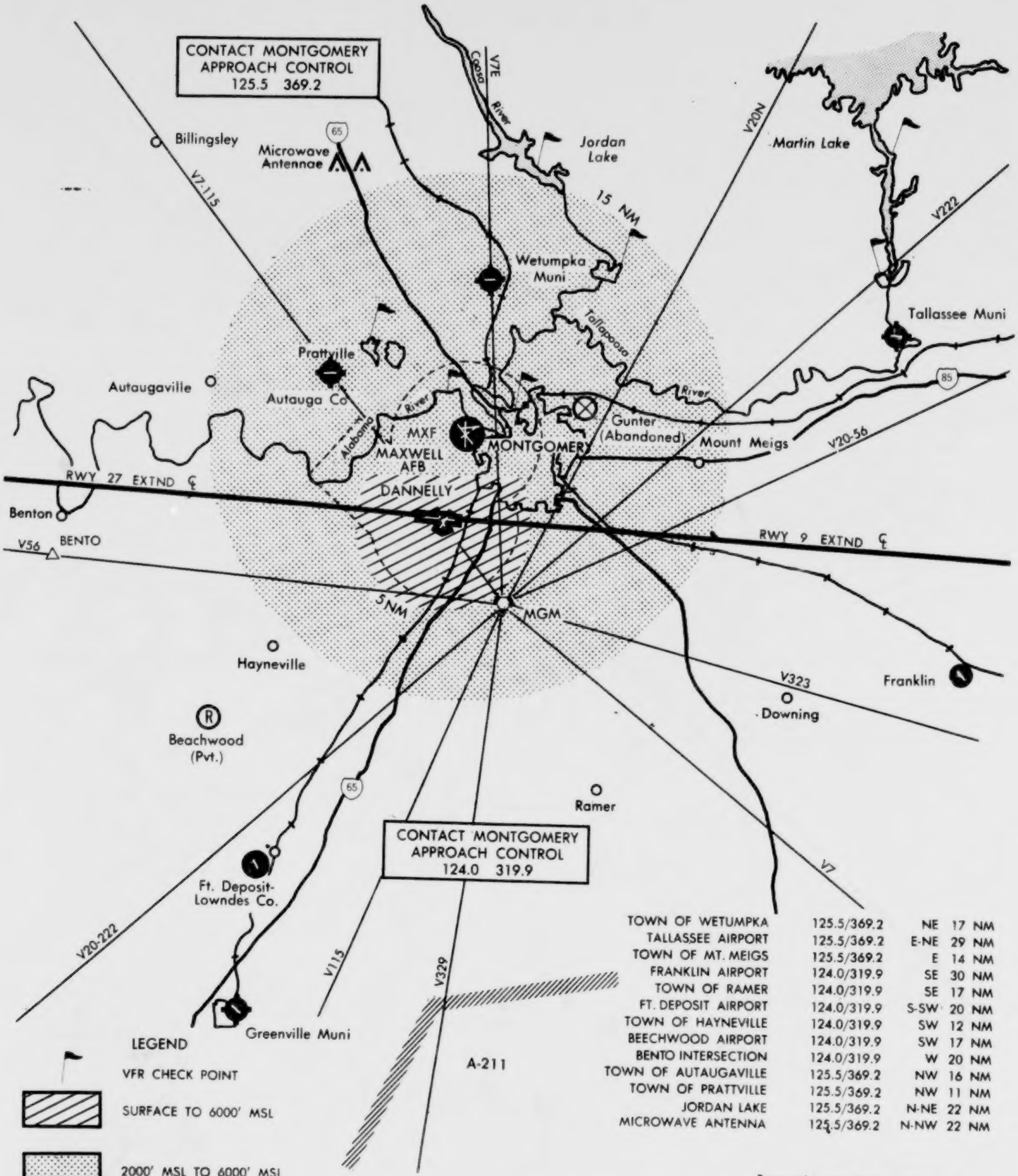

221°-040°
CONTACT MONROE
APPROACH CONTROL
126.9 388.0
Ouachita River
BASTROP
Morehouse Mem
Farmerville
Lake D'Arbonne
V71
V94
Sterlington
040°M
V94S
Oak Ridge
V18N
70
13
Horseshoe Lake
Wham Break
V18N
V18
70
SFC
20
V18
Calhoun
V18S-94
Huenefeld
Rayville Muni
Olincraft
MLU
Start
MONROE REGIONAL
70
13
20
V18S-71E
DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF
Willow Wind
Clear Lake
V71E
220°M
041°-220°
CONTACT MONROE
APPROACH CONTROL
118.15 388.0
Lake Chatham
Chatham
V71
V71W
KNOE
TV Tower
Winnsboro Muni
Columbia
LEGEND
VFR CHECKPOINT
70 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
13 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MONTGOMERY, ALABAMA, DANNELLY AIRPORT
FIELD ELEV 221′ MSL


CONTACT MONTGOMERY APPROACH CONTROL 125.5 369.2
Billingsley
Microwave Antennae
65
V7E
Coosa River
Jordan Lake
Martin Lake
V20N
V7-115
15 NM
V222
Wetumpka Muni
Tallapoosa River
Tallassee Muni
Prattville
Autaugaville
Autauga Co
Alabama River
85
Gunter (Abandoned)
MXF MAXWELL AFB
MONTGOMERY
Mount Meigs
V20-56
RWY 27 EXTND ℄
DANNELLY
Benton
BENTO
V56
RWY 9 EXTND ℄
5 NM
MGM
Hayneville
V323
Franklin
Downing
Beachwood (Pvt.)
65
Ramer
CONTACT MONTGOMERY APPROACH CONTROL 124.0 319.9
V7
Ft. Deposit-Lowndes Co.
V20-222
V115
V329
Greenville Muni
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
2000′ MSL TO 6000′ MSL
A-211

TOWN OF WETUMPKA	125.5/369.2	NE	17 NM
TALLASSEE AIRPORT	125.5/369.2	E-NE	29 NM
TOWN OF MT. MEIGS	125.5/369.2	E	14 NM
FRANKLIN AIRPORT	124.0/319.9	SE	30 NM
TOWN OF RAMER	124.0/319.9	SE	17 NM
FT. DEPOSIT AIRPORT	124.0/319.9	S-SW	20 NM
TOWN OF HAYNEVILLE	124.0/319.9	SW	12 NM
BEECHWOOD AIRPORT	124.0/319.9	SW	17 NM
BENTO INTERSECTION	124.0/319.9	W	20 NM
TOWN OF AUTAUGAVILLE	125.5/369.2	NW	16 NM
TOWN OF PRATTVILLE	125.5/369.2	NW	11 NM
JORDAN LAKE	125.5/369.2	N-NE	22 NM
MICROWAVE ANTENNA	125.5/369.2	N-NW	22 NM

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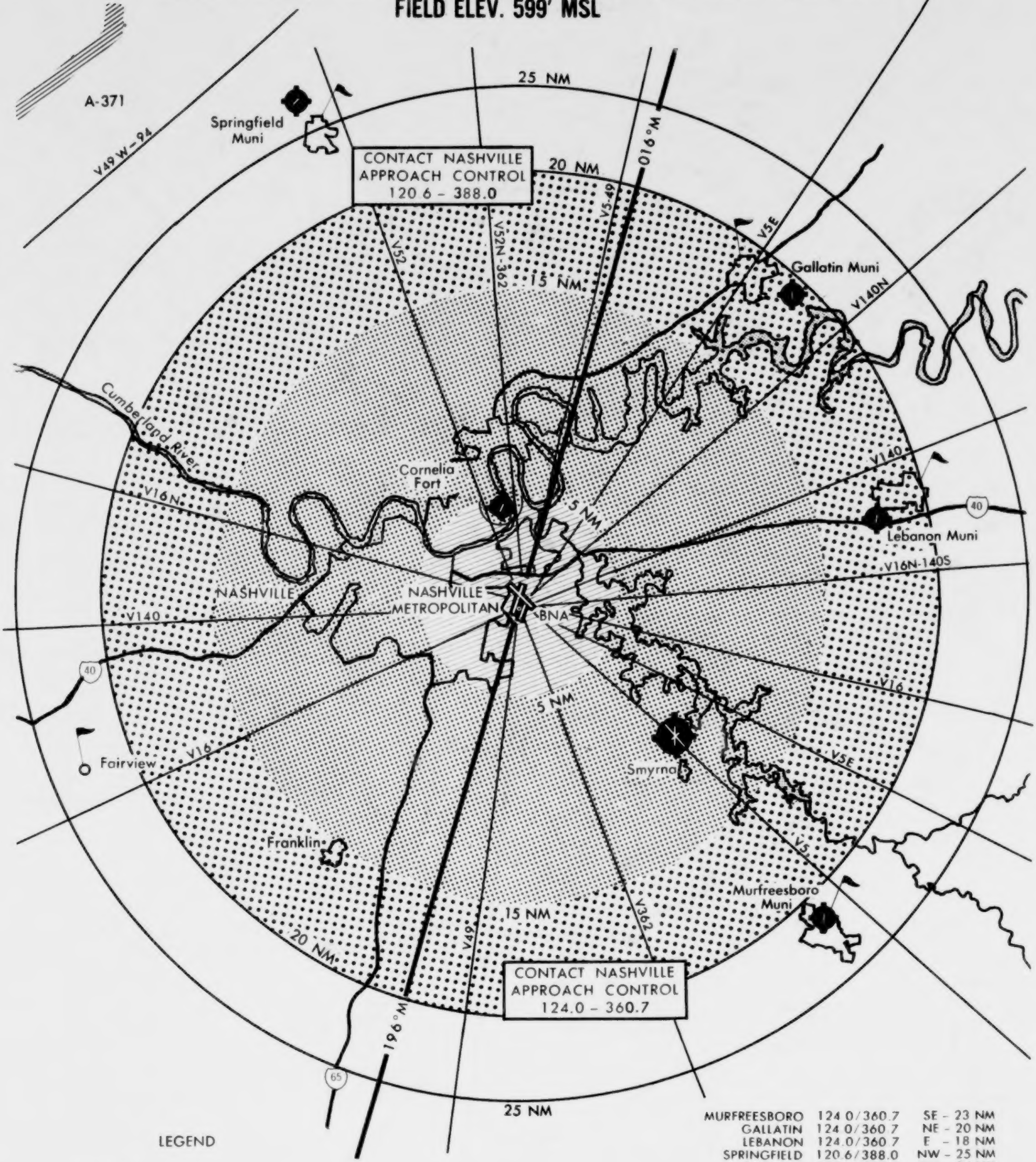
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

NASHVILLE, TENNESSEE, NASHVILLE METRO. AIRPORT
FIELD ELEV. 599' MSL


25 NM
A-371
Springfield Muni
V49 W-94
CONTACT NASHVILLE APPROACH CONTROL 120.6 - 388.0
20 NM
016°M
V5-49
V52
V52N-362
15 NM
V5E
Gallatin Muni
V140N
Cumberland River
Cornelia Fort
5 NM
V140
V16N
40
Lebanon Muni
V16N-140S
NASHVILLE
NASHVILLE METROPOLITAN
BNA
V140
40
V16
5 NM
V5E
V16
Fairview
Smyrna
V5
Franklin
Murfreesboro Muni
15 NM
20 NM
V49
V362
CONTACT NASHVILLE APPROACH CONTROL 124.0 - 360.7
196°M
65
25 NM

MURFREESBORO	124.0/360.7	SE - 23 NM
GALLATIN	124.0/360.7	NE - 20 NM
LEBANON	124.0/360.7	E - 18 NM
SPRINGFIELD	120.6/388.0	NW - 25 NM
FAIRVIEW	120.6/388.0	SW - 24 NM

LEGEND

▨ SURFACE TO 10000' MSL

▒ 2000' TO 10000' MSL

⁘ 4000' TO 10000' MSL

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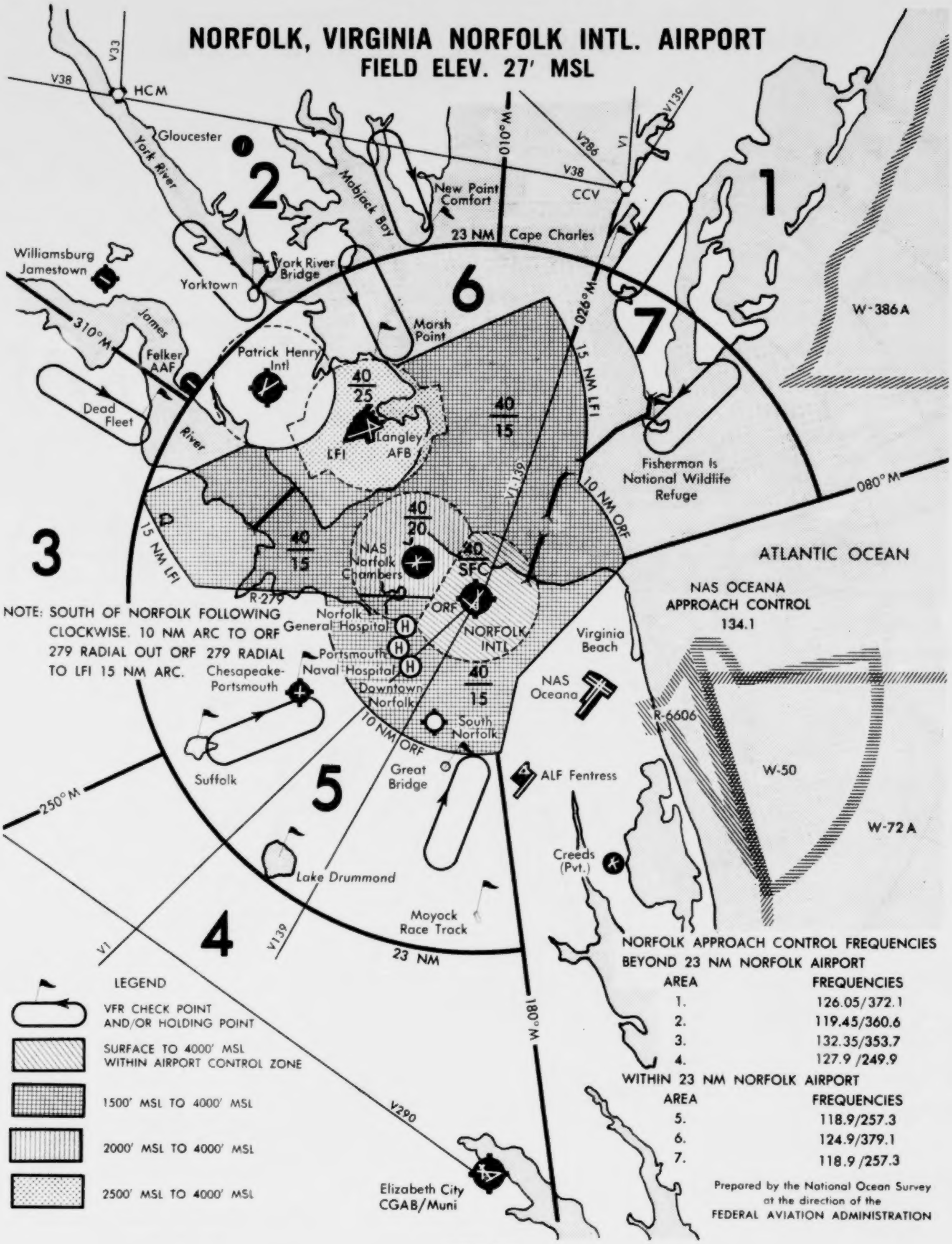
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA NORFOLK INTL. AIRPORT
FIELD ELEV. 27′ MSL


V33
V38
HCM
Gloucester
York River
2
Mobjack Bay
010°M
V139
V286
V1
V38
CCV
New Point Comfort
1
23 NM
Cape Charles
Williamsburg Jamestown
Yorktown
York River Bridge
6
Marsh Point
7
W-386A
310°M
James
Felker AAF
Patrick Henry Intl
026°M
15 NM LFI
Dead Fleet
River
40/25
Langley AFB
LFI
40/15
Fisherman Is National Wildlife Refuge
V1-139
10 NM ORF
080°M
3
15 NM LFI
40/20
40/15
NAS Norfolk Chambers
40/SFC
ATLANTIC OCEAN
R-279
ORF
NAS OCEANA APPROACH CONTROL 134.1
Norfolk General Hospital
NORFOLK INTL
Virginia Beach
Portsmouth Naval Hospital
Chesapeake-Portsmouth
Downtown Norfolk
40/15
NAS Oceana
South Norfolk
R-6606
10 NM ORF
Suffolk
5
Great Bridge
ALF Fentress
W-50
250°M
W-72A
Lake Drummond
Creeds (Pvt.)
Moyock Race Track
V1
V139
4
23 NM
180°M
V290
Elizabeth City CGAB/Muni
LEGEND
VFR CHECK POINT AND/OR HOLDING POINT
SURFACE TO 4000′ MSL WITHIN AIRPORT CONTROL ZONE
1500′ MSL TO 4000′ MSL
2000′ MSL TO 4000′ MSL
2500′ MSL TO 4000′ MSL

NOTE: SOUTH OF NORFOLK FOLLOWING CLOCKWISE. 10 NM ARC TO ORF 279 RADIAL OUT ORF 279 RADIAL TO LFI 15 NM ARC.

NORFOLK APPROACH CONTROL FREQUENCIES BEYOND 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
1.	126.05/372.1
2.	119.45/360.6
3.	132.35/353.7
4.	127.9 /249.9

WITHIN 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
5.	118.9/257.3
6.	124.9/379.1
7.	118.9 /257.3

Prepared by the National Ocean Survey
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FEDERAL AVIATION ADMINISTRATION

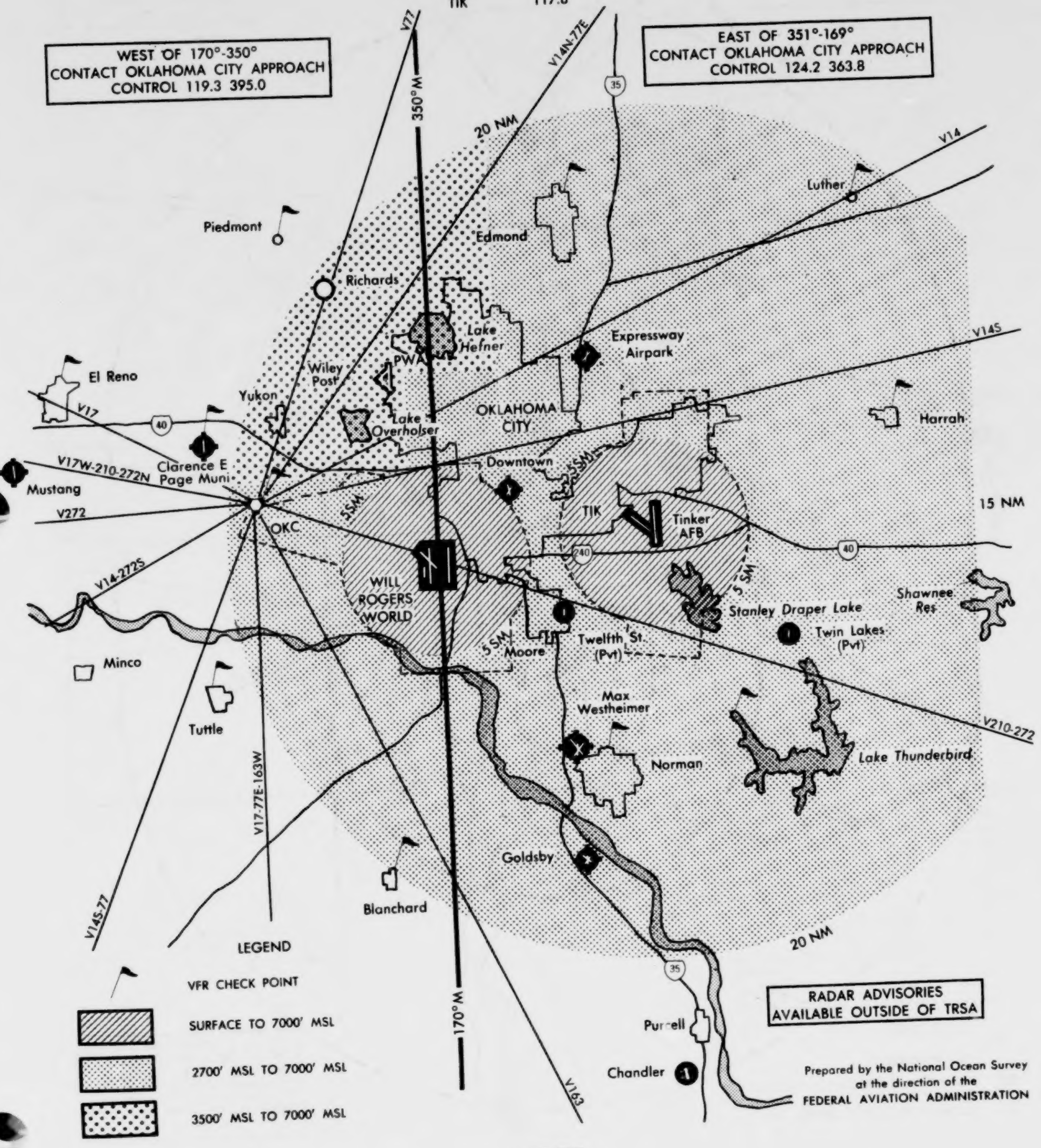
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

OKLAHOMA CITY, OKLAHOMA WILL ROGERS WORLD AIRPORT
FIELD ELEV. 1294′ MSL

ATIS	
OKC	125.6
PWA	113.4
TIK	117.8

WEST OF 170°-350°
CONTACT OKLAHOMA CITY APPROACH
CONTROL 119.3 395.0

EAST OF 351°-169°
CONTACT OKLAHOMA CITY APPROACH
CONTROL 124.2 363.8


V77
V14N-77E
350° M
35
20 NM
V14
Luther
Piedmont
Edmond
Richards
Lake Hefner
PWA
Wiley Post
Expressway Airpark
V14S
El Reno
Yukon
V17
40
Lake Overholser
OKLAHOMA CITY
Harrah
Clarence E Page Muni
Mustang
V17W-210-272N
Downtown
5 SM
TIK
Tinker AFB
15 NM
V272
OKC
240
40
V14-272S
WILL ROGERS WORLD
Stanley Draper Lake
Shawnee Res
Twelfth St. (Pvt)
Twin Lakes (Pvt)
Moore
Minco
Max Westheimer
Tuttle
V210-272
Norman
Lake Thunderbird
V17-77E-163W
Goldsby
Blanchard
V14S-77
20 NM
35
170° M
Purcell
Chandler
V163

RADAR ADVISORIES
AVAILABLE OUTSIDE OF TRSA

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 7000′ MSL
▒	2700′ MSL TO 7000′ MSL
░	3500′ MSL TO 7000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

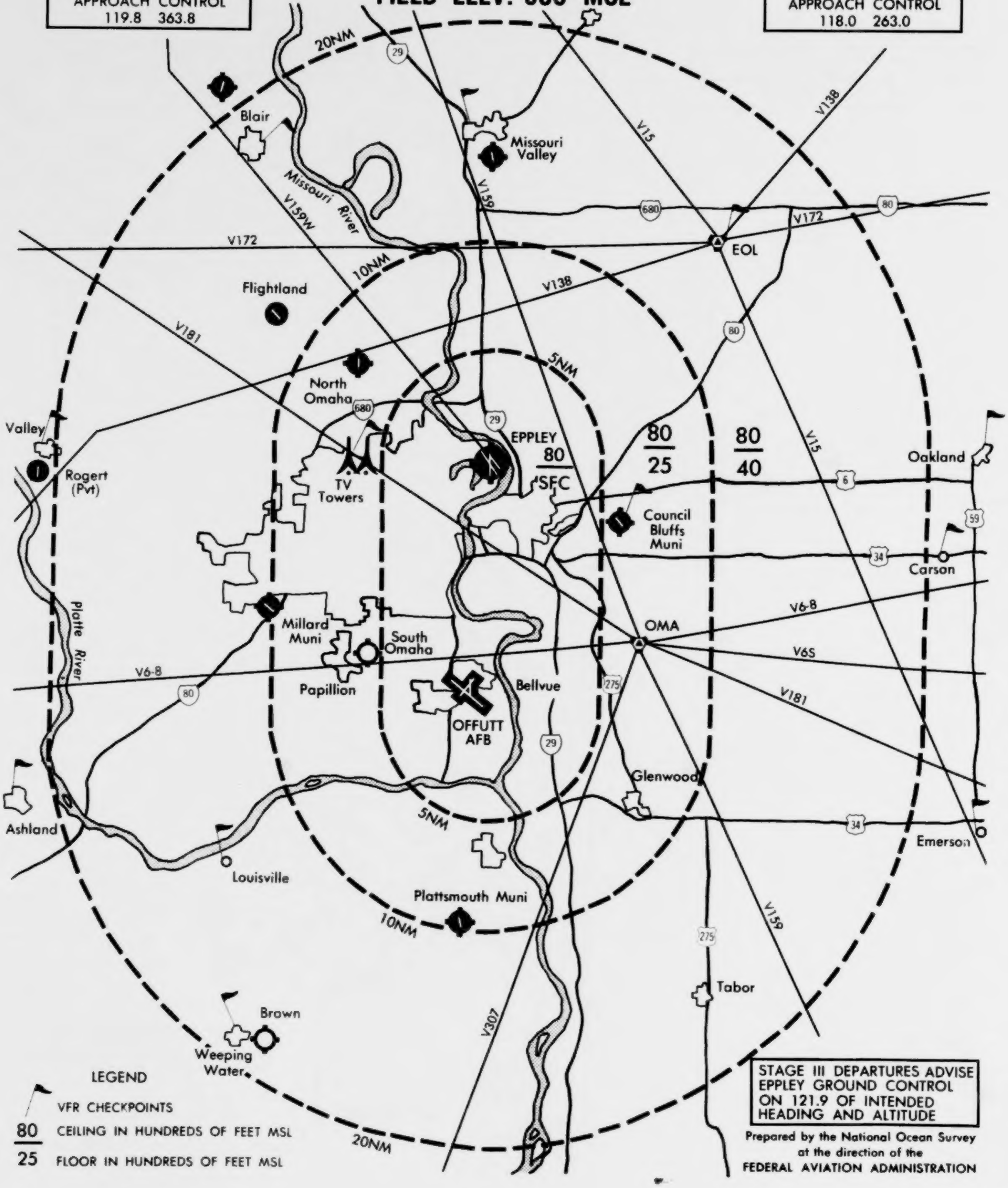
OMAHA, NEBRASKA

OFFUTT AFB EPPLEY AIRFIELD
FIELD ELEV. 1048' MSL

FIELD ELEV. 983' MSL

WEST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
119.8 363.8

EAST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
118.0 263.0



20NM
10NM
5NM
Blair
Missouri River
Missouri Valley
V159W
V159
V15
V138
V172
V181
V6-8
V6S
V307
EOL
OMA
Flightland
North Omaha
TV Towers
EPPLEY
80
SFC
80
25
80
40
Council Bluffs Muni
Valley
Rogert (Pvt)
Oakland
Carson
Platte River
Millard Muni
South Omaha
Papillion
Bellvue
OFFUTT AFB
Glenwood
Ashland
Emerson
Louisville
Plattsmouth Muni
Tabor
Brown
Weeping Water
29
680
80
6
34
59
275

LEGEND

VFR CHECKPOINTS

80 CEILING IN HUNDREDS OF FEET MSL

25 FLOOR IN HUNDREDS OF FEET MSL

STAGE III DEPARTURES ADVISE
EPPLEY GROUND CONTROL
ON 121.9 OF INTENDED
HEADING AND ALTITUDE

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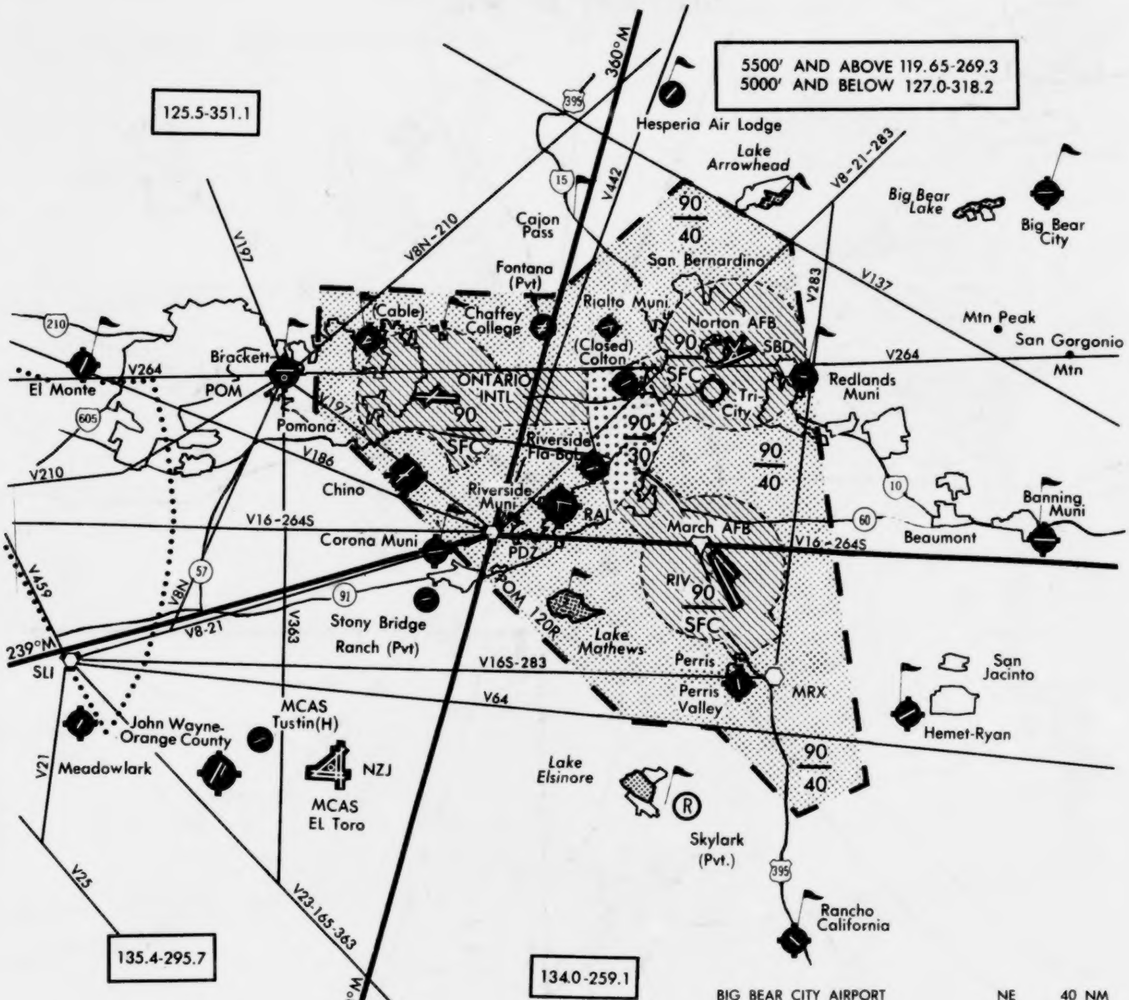
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ONTARIO, CALIFORNIA, ONTARIO INTERNATIONAL
FIELD ELEV 952' MSL


5500' AND ABOVE 119.65-269.3
5000' AND BELOW 127.0-318.2
125.5-351.1
135.4-295.7
134.0-259.1
360°M
180°M
239°M
Hesperia Air Lodge
Lake Arrowhead
Big Bear Lake
Big Bear City
Cajon Pass
Fontana (Pvt)
San Bernardino
Rialto Muni
Norton AFB
SBD
(Cable)
Chaffey College
(Closed) Colton
Brackett
POM
Pomona
El Monte
ONTARIO INTL
SFC
Tri City
Redlands Muni
Mtn Peak
San Gorgonio Mtn
Riverside Fla-Bob
Riverside Muni
RAL
PDZ
Chino
Corona Muni
March AFB
RIV
Beaumont
Banning Muni
Stony Bridge Ranch (Pvt)
Lake Mathews
POM 120R
Perris
Perris Valley
MRX
San Jacinto
Hemet-Ryan
SLI
John Wayne-Orange County
MCAS Tustin(H)
Meadowlark
NZJ
MCAS EL Toro
Lake Elsinore
Skylark (Pvt.)
Rancho California
90/40
90/SFC
90/30
V8N-210
V197
V442
V8-21-283
V283
V137
V264
V186
V210
V16-264S
V459
V8N
V8-21
V363
V16S-283
V64
V21
V25
V23-165-363
15
395
210
605
10
60
57
91

LEGEND

VFR CHECK POINT

▨ SURFACE TO 9000' MSL WITHIN AIRPORT CONTROL ZONE

⁙ 3000' MSL-9000' MSL

░ 4000' MSL–9000' MSL

•••••••••• LOS ANGELES TCA

— — TERMINAL RADAR SERVICE AREA

$\frac{90}{40}$ CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL

BIG BEAR CITY AIRPORT	NE	40 NM
BANNING AIRPORT	E	39 NM
HEMET AIRPORT	SE	35 NM
RANCHO CALIFORNIA AIRPORT	SE	40 NM
SKYLARK FIELD/LAKE ELSINORE	SE	27 NM
LAKE MATHEWS	SE	16 NM
CORONA AIRPORT	S	10 NM
EL MONTE AIRPORT	W	22 NM
BRACKETT AIRPORT/POMONA VOR	W	10 NM
CHAFFEY COLLEGE	NE	5 NM
LAKE ARROWHEAD	NE	24 NM
CAJON PASS	NE	13 NM
REDLANDS AIRPORT	E	22 NM
HESPERIA AIR PARK	NE	24 NM
CABLE AIRPORT	NW	5 NM
ONTARIO VOR	SE	9 NM

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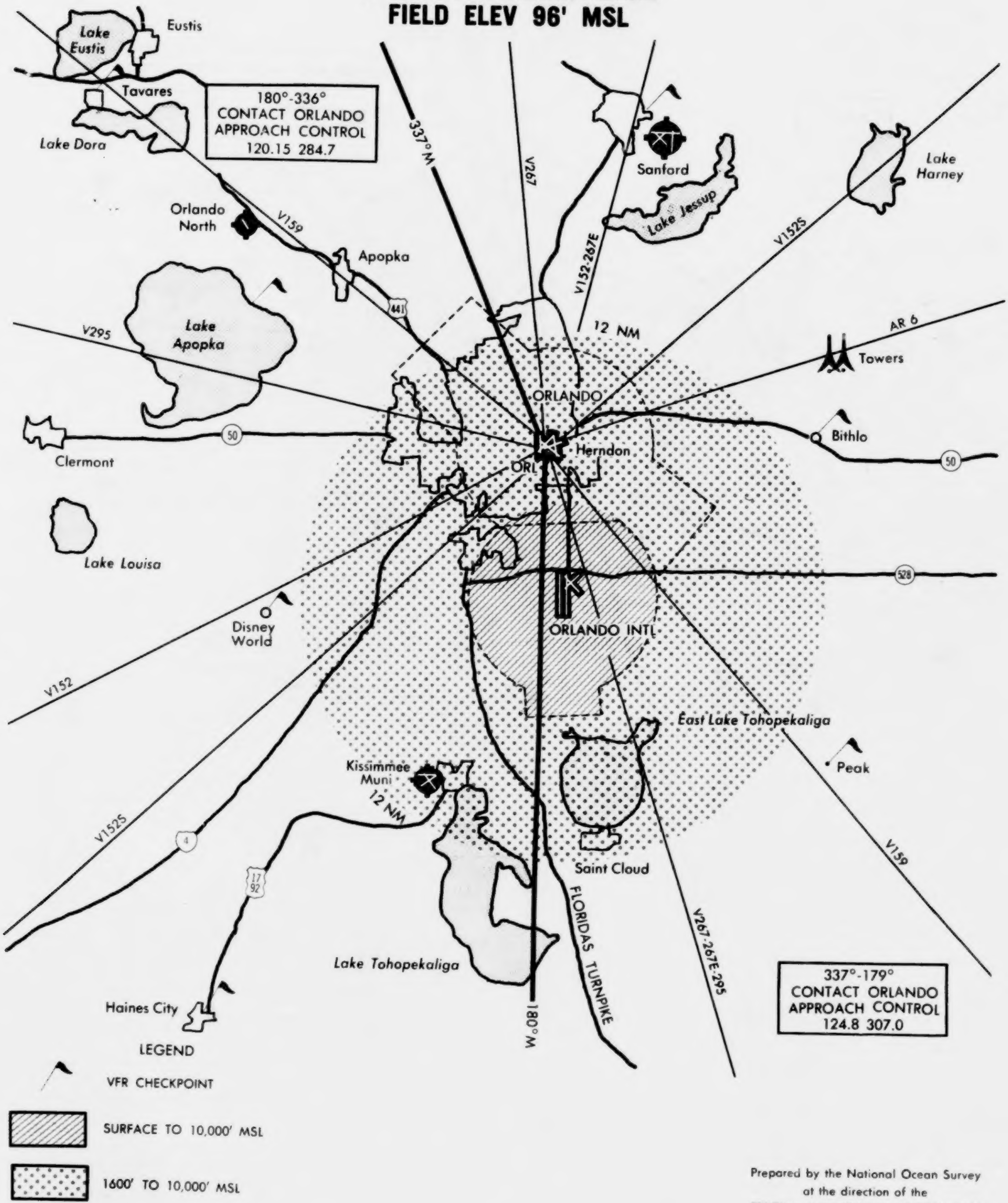
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ORLANDO, FLORIDA
ORLANDO INTERNATIONAL
FIELD ELEV 96' MSL


Lake Eustis
Eustis
Tavares
Lake Dora
180°-336°
CONTACT ORLANDO
APPROACH CONTROL
120.15 284.7
337°M
V267
Sanford
Lake Jessup
Lake Harney
Orlando North
V159
Apopka
441
V152-267E
V1525
AR 6
Towers
12 NM
V295
Lake Apopka
ORLANDO
Herndon
ORL
50
Clermont
Bithlo
50
Lake Louisa
528
Disney World
ORLANDO INTL
V152
East Lake Tohopekaliga
Peak
Kissimmee Muni
12 NM
V1525
4
17 92
Saint Cloud
FLORIDAS TURNPIKE
V267-267E-295
V159
Lake Tohopekaliga
180°M
337°-179°
CONTACT ORLANDO
APPROACH CONTROL
124.8 307.0
Haines City
LEGEND
VFR CHECKPOINT
SURFACE TO 10,000' MSL
1600' TO 10,000' MSL

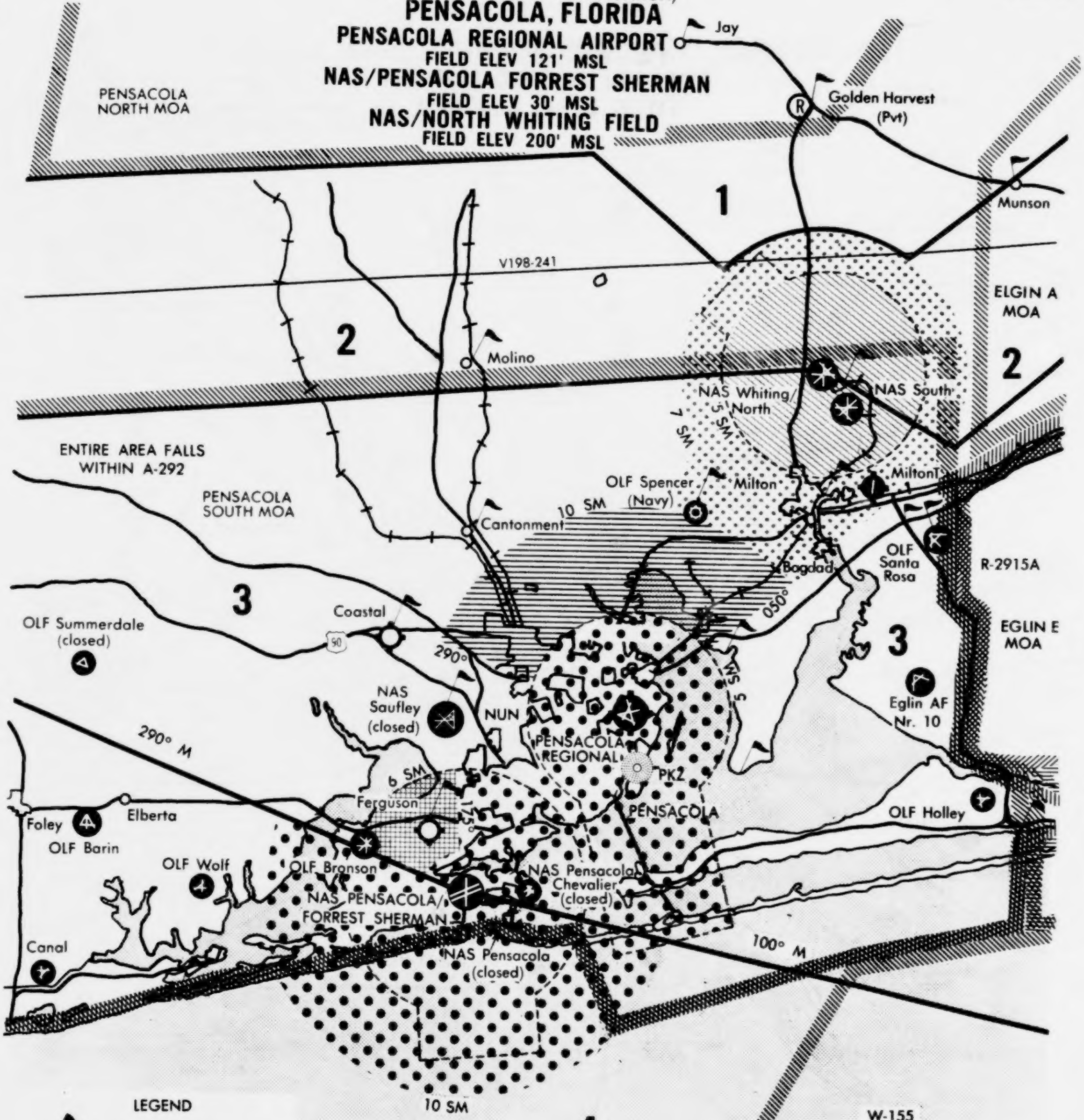
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PENSACOLA, FLORIDA

PENSACOLA REGIONAL AIRPORT
FIELD ELEV 121' MSL
NAS/PENSACOLA FORREST SHERMAN
FIELD ELEV 30' MSL
NAS/NORTH WHITING FIELD
FIELD ELEV 200' MSL


Jay
PENSACOLA NORTH MOA
Golden Harvest (Pvt)
Munson
1
V198-241
ELGIN A MOA
2
Molino
2
NAS Whiting/North
NAS South
7 SM
5 SM
ENTIRE AREA FALLS WITHIN A-292
PENSACOLA SOUTH MOA
OLF Spencer (Navy)
Milton
MiltonT
10 SM
Cantonment
OLF Santa Rosa
Bagdad
R-2915A
3
050°
Coastal
OLF Summerdale (closed)
90
290°
3
EGLIN E MOA
5 SM
NAS Saufley (closed)
NUN
Eglin AF Nr. 10
290° M
PENSACOLA REGIONAL
PKZ
6 SM
Ferguson
PENSACOLA
OLF Holley
Foley
Elberta
OLF Barin
OLF Wolf
OLF Bronson
NAS Pensacola Chevalier (closed)
NAS PENSACOLA/FORREST SHERMAN
100° M
Canal
NAS Pensacola (closed)
10 SM
4
W-155
GULF OF MEXICO

LEGEND

VFR CHECK POINTS

▨ SURFACE TO 3500' MSL

░ 1700' MSL TO 3500' MSL

● SURFACE TO 4500' MSL

▤ 1700' MSL TO 4500' MSL

▦ 700' MSL TO 4500' MSL

PENSACOLA APPROACH CONTROL FREQUENCIES

AREA	FREQUENCIES
1	127.35/265.1
2	126.85/298.9
3	119.0/286.0
4	118.8/314.0

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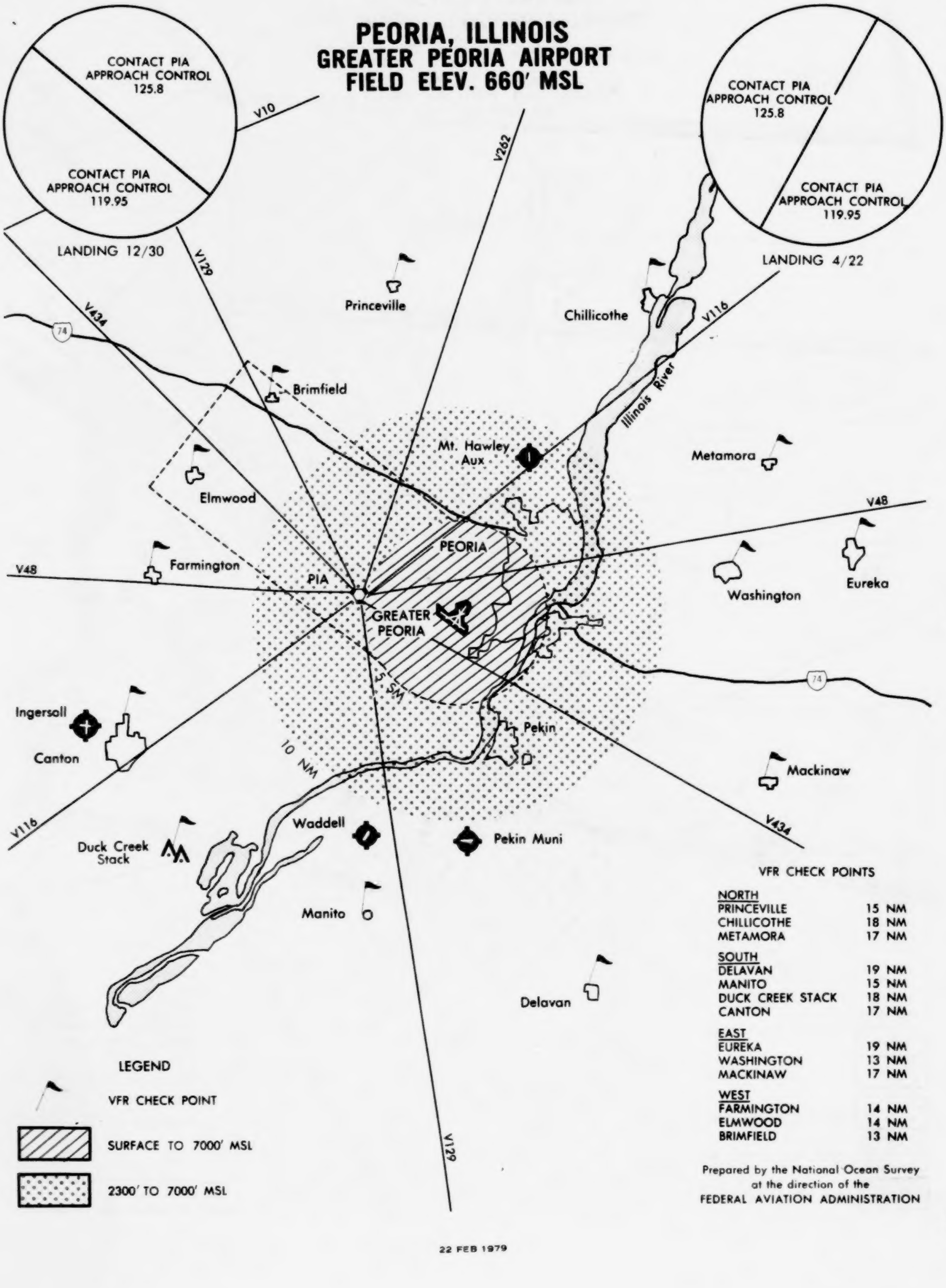
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PEORIA, ILLINOIS
GREATER PEORIA AIRPORT
FIELD ELEV. 660′ MSL


CONTACT PIA APPROACH CONTROL 125.8
CONTACT PIA APPROACH CONTROL 119.95
LANDING 12/30
CONTACT PIA APPROACH CONTROL 125.8
CONTACT PIA APPROACH CONTROL 119.95
LANDING 4/22
V10
V262
V129
V434
V116
V48
74
Princeville
Chillicothe
Brimfield
Illinois River
Mt. Hawley Aux
Metamora
Elmwood
PEORIA
Farmington
PIA
Washington
Eureka
GREATER PEORIA
5 SM
10 NM
Ingersoll
Canton
Pekin
Mackinaw
Waddell
Pekin Muni
Duck Creek Stack
Manito
Delavan
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
2300′ TO 7000′ MSL

VFR CHECK POINTS

NORTH	
PRINCEVILLE	15 NM
CHILLICOTHE	18 NM
METAMORA	17 NM
SOUTH	
DELAVAN	19 NM
MANITO	15 NM
DUCK CREEK STACK	18 NM
CANTON	17 NM
EAST	
EUREKA	19 NM
WASHINGTON	13 NM
MACKINAW	17 NM
WEST	
FARMINGTON	14 NM
ELMWOOD	14 NM
BRIMFIELD	13 NM

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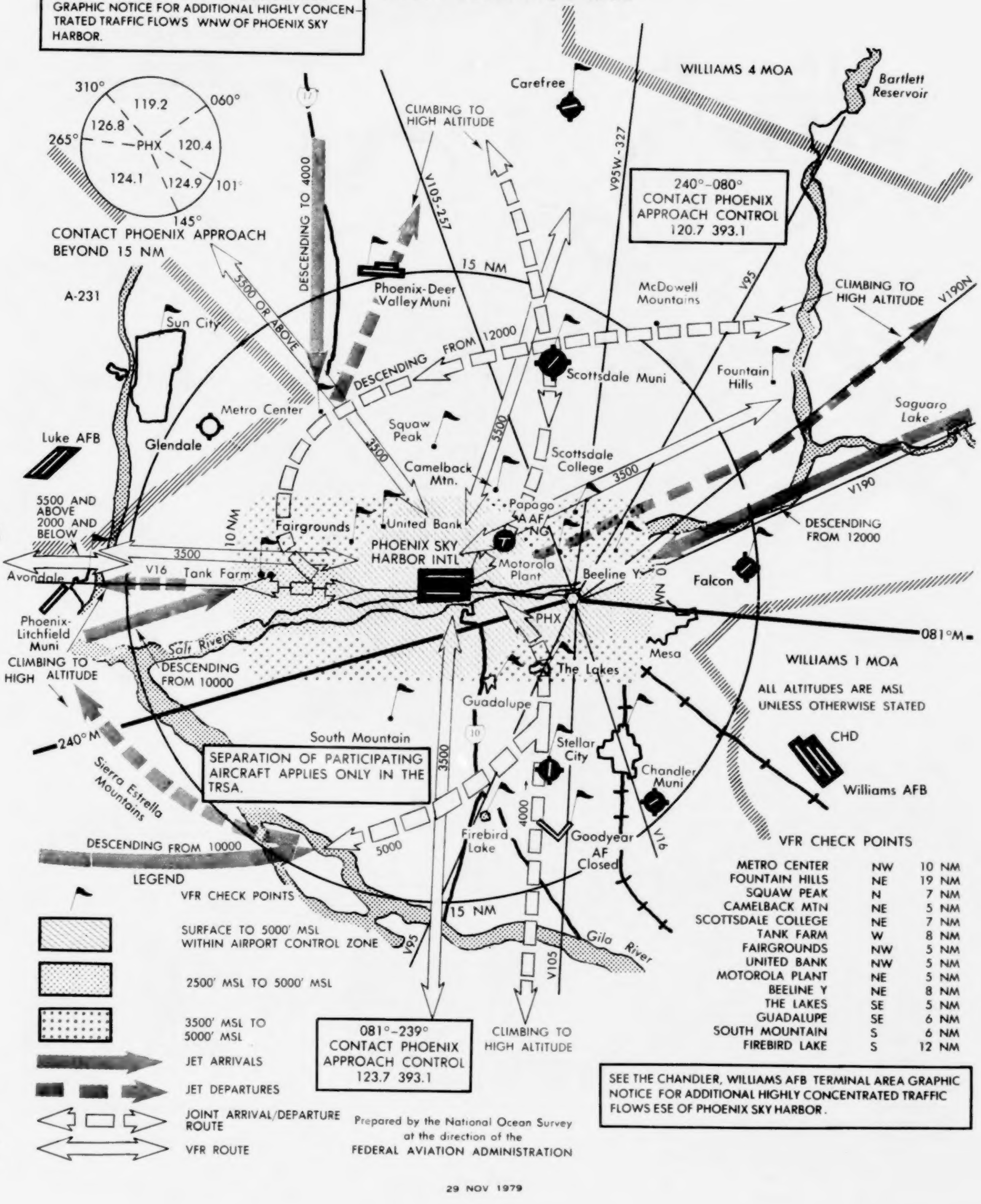
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA/
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PHOENIX, ARIZONA PHOENIX SKY HARBOR INTL

FIELD ELEV. 1132′ MSL

SEE THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW OF PHOENIX SKY HARBOR.


310°
060°
119.2
126.8
265°
PHX
120.4
124.1
124.9
101°
145°
CONTACT PHOENIX APPROACH BEYOND 15 NM
A-231
Carefree
WILLIAMS 4 MOA
Bartlett Reservoir
CLIMBING TO HIGH ALTITUDE
DESCENDING TO 4000
V105-257
V95W-327
240°-080° CONTACT PHOENIX APPROACH CONTROL 120.7 393.1
15 NM
Phoenix-Deer Valley Muni
5500 OR ABOVE
McDowell Mountains
V95
CLIMBING TO HIGH ALTITUDE
V190N
Sun City
DESCENDING FROM 12000
Scottsdale Muni
Fountain Hills
Saguaro Lake
Metro Center
Squaw Peak
Luke AFB
Glendale
3500
5500
Scottsdale College
Camelback Mtn.
3500
V190
5500 AND ABOVE 2000 AND BELOW
10 NM
Fairgrounds
United Bank
Papago AAF NG
DESCENDING FROM 12000
3500
PHOENIX SKY HARBOR INTL
Motorola Plant
Avondale
V16
Tank Farm
Beeline Y
10 NM
Falcon
PHX
081°M
Phoenix-Litchfield Muni
Salt River
Mesa
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 10000
The Lakes
WILLIAMS 1 MOA
Guadalupe
240°M
South Mountain
10
Stellar City
CHD
Sierra Estrella Mountains
3500
Chandler Muni
Williams AFB
4000
DESCENDING FROM 10000
Firebird Lake
Goodyear AF Closed
V16
5000
15 NM
V95
Gila River
V105
CLIMBING TO HIGH ALTITUDE
LEGEND
VFR CHECK POINTS
SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
2500′ MSL TO 5000′ MSL
3500′ MSL TO 5000′ MSL
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTE

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

SEPARATION OF PARTICIPATING AIRCRAFT APPLIES ONLY IN THE TRSA.

081°-239°
CONTACT PHOENIX
APPROACH CONTROL
123.7 393.1

VFR CHECK POINTS

METRO CENTER	NW	10 NM
FOUNTAIN HILLS	NE	19 NM
SQUAW PEAK	N	7 NM
CAMELBACK MTN	NE	5 NM
SCOTTSDALE COLLEGE	NE	7 NM
TANK FARM	W	8 NM
FAIRGROUNDS	NW	5 NM
UNITED BANK	NW	5 NM
MOTOROLA PLANT	NE	5 NM
BEELINE Y	NE	8 NM
THE LAKES	SE	5 NM
GUADALUPE	SE	6 NM
SOUTH MOUNTAIN	S	6 NM
FIREBIRD LAKE	S	12 NM

SEE THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE OF PHOENIX SKY HARBOR.

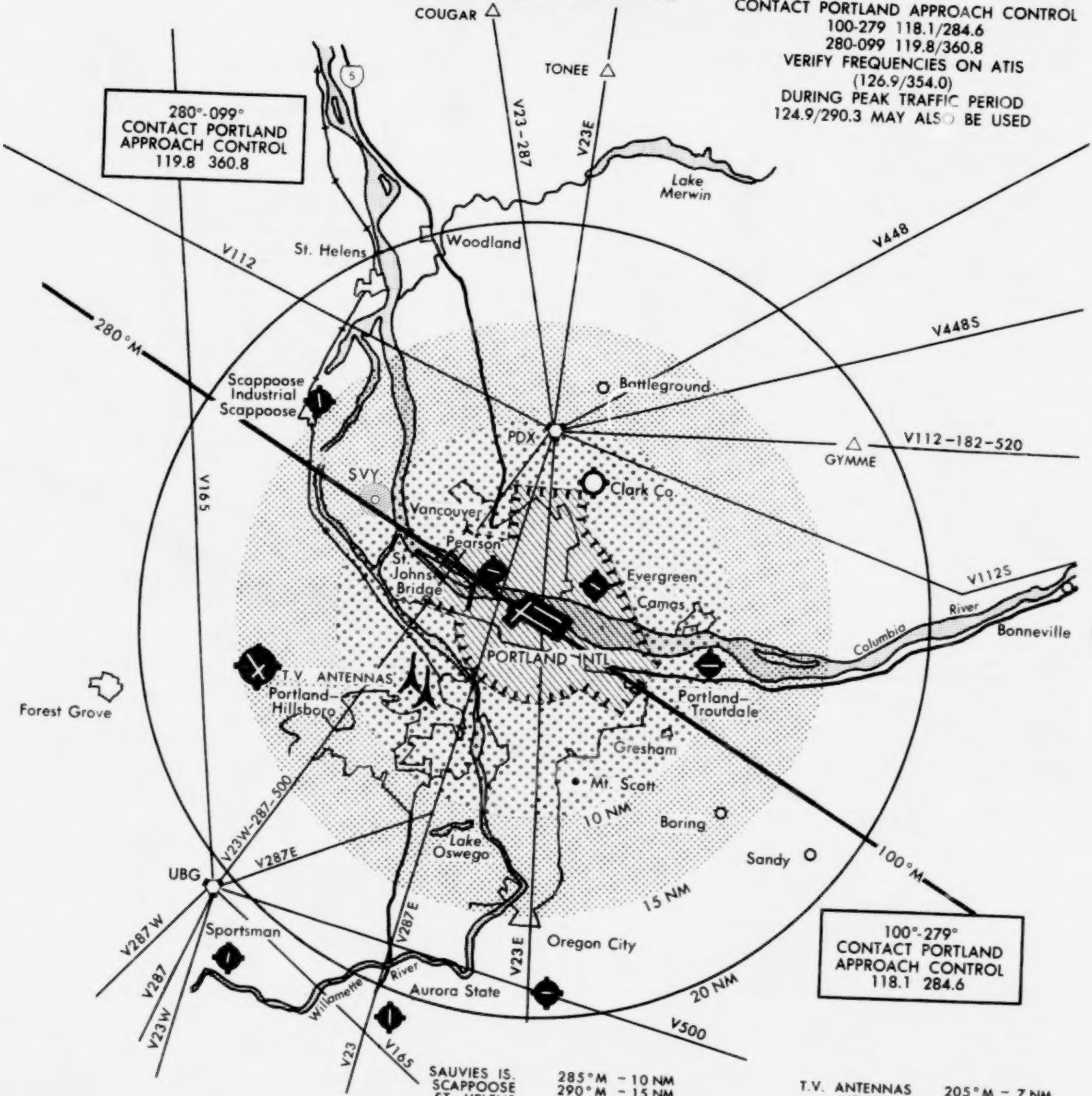
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PORTLAND, OREGON
PORTLAND INTERNATIONAL AIRPORT
FIELD ELEV. 26' MSL

CONTACT PORTLAND APPROACH CONTROL
100-279 118.1/284.6
280-099 119.8/360.8
VERIFY FREQUENCIES ON ATIS
(126.9/354.0)
DURING PEAK TRAFFIC PERIOD
124.9/290.3 MAY ALSO BE USED


COUGAR
TONEE
5
V23-287
V23E
Lake Merwin
V448
V448S
V112
280° M
St. Helens
Woodland
Scappoose Industrial Scappoose
Battleground
PDX
GYMME
V112-182-520
SVY
Clark Co.
Vancouver
Pearson
St. Johns Bridge
Evergreen
Camas
V112S
River
Columbia
Bonneville
PORTLAND INTL
T.V. ANTENNAS
Portland-Hillsboro
Portland-Troutdale
Forest Grove
Gresham
Mt. Scott
10 NM
Boring
Sandy
V165
V23W-287-500
V287E
Lake Oswego
100° M
15 NM
UBG
Sportsman
V287W
V287
V23W
V287E
V23E
Oregon City
Willamette River
Aurora State
20 NM
V500
V23
V165

280°-099°
CONTACT PORTLAND
APPROACH CONTROL
119.8 360.8

100°-279°
CONTACT PORTLAND
APPROACH CONTROL
118.1 284.6

SAUVIES IS.	285° M - 10 NM
SCAPPOOSE	290° M - 15 NM
ST. HELENS	310° M - 18 NM
WOODLAND	322° M - 20 NM
COUGAR	332° M - 30 NM
TONEE	344° M - 28 NM
SCHOLLS	003° M - 7 NM
GYMME	037° M - 18 NM
BONNEVILLE	063° M - 28 NM
CAMAS	072° M - 9 NM
TROUTDALE	084° M - 9 NM
BATTLEGROUND	355° M - 12 NM
LAKE MERWIN	355° M - 24 NM

T.V. ANTENNAS	205° M - 7 NM
NEWBURG	205° M - 21 NM
HILLSBORO	235° M - 15 NM
FOREST GROVE	235° M - 22 NM
ST JOHNS BRIDGE	240° M - 7 NM
GRESHAM	108° M - 9 NM
SANDY	108° M - 19 NM
BORING	113° M - 14 NM
MT SCOTT	140° M - 9 NM
OREGON CITY	155° M - 15 NM
LAKE OSWEGO	175° M - 11 NM
AURORA	175° M - 22 NM

LEGEND

▨	SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE
▦	2000 TO 8000' MSL
░	3000 TO 8000' MSL

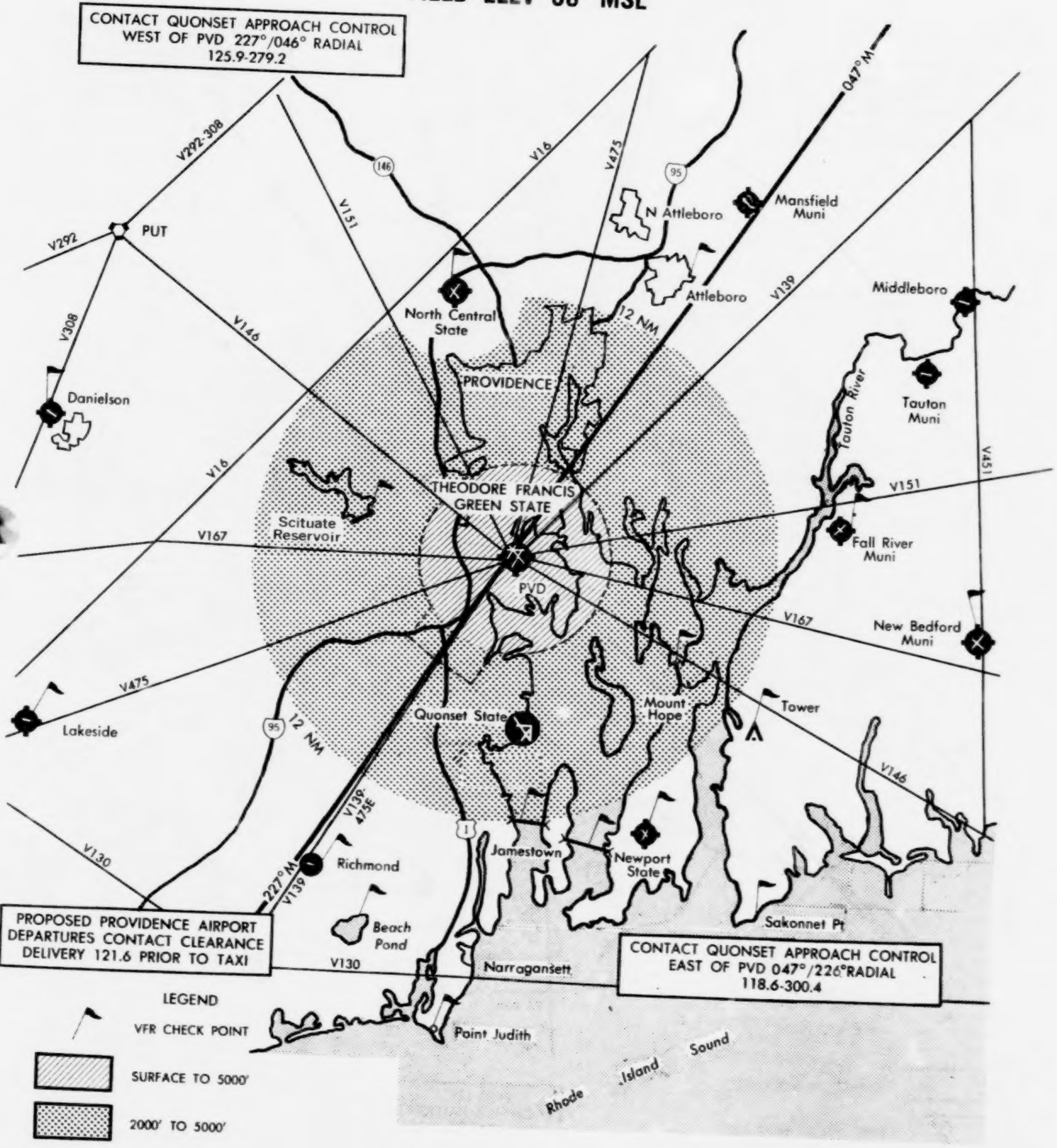
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

PROVIDENCE, RHODE ISLAND
THEODORE FRANCIS GREEN STATE AIRPORT
FIELD ELEV 56' MSL

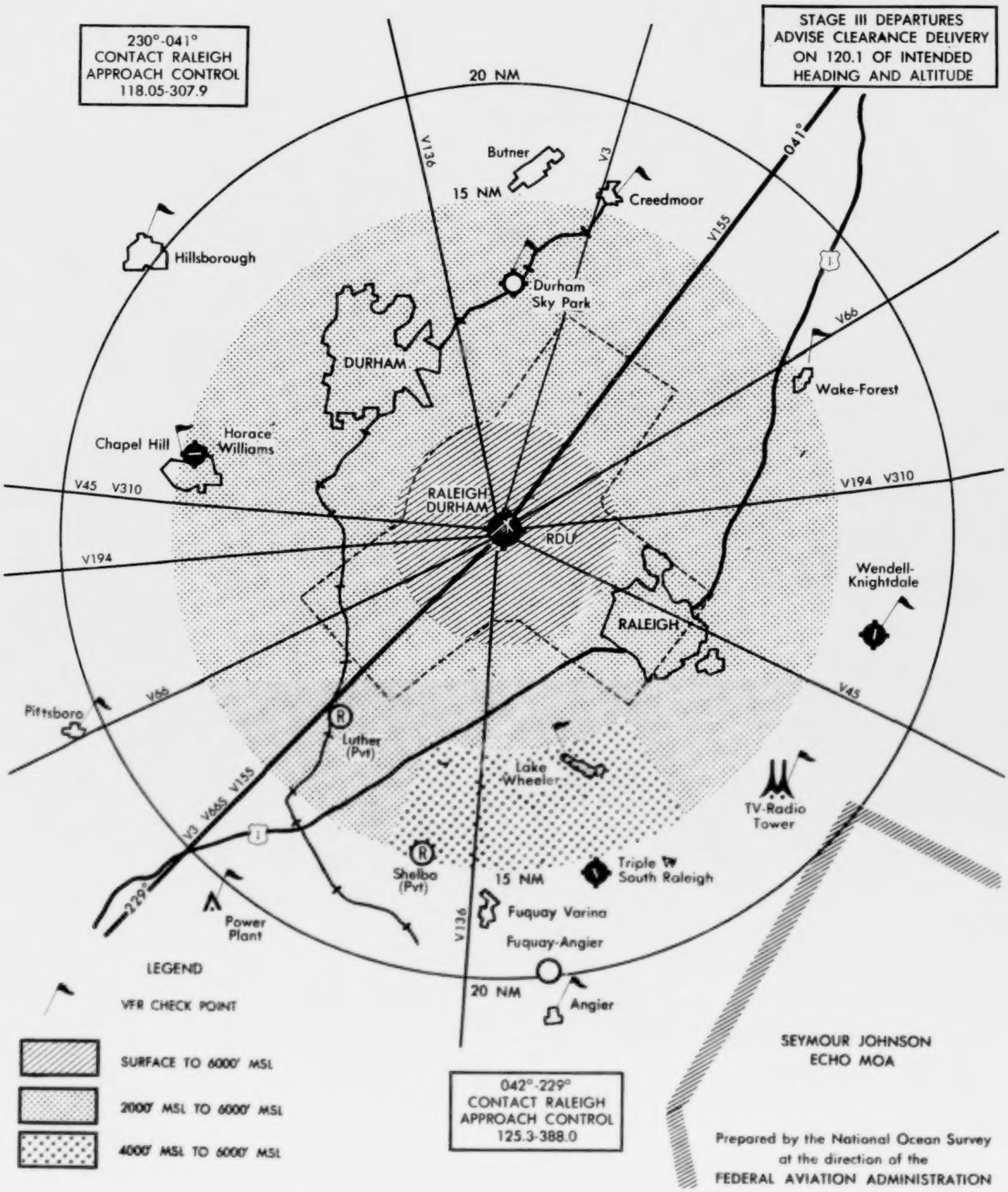

CONTACT QUONSET APPROACH CONTROL
WEST OF PVD 227°/046° RADIAL
125.9-279.2
V292-308
V292
PUT
V308
Danielson
V16
V151
V146
146
V475
95
N Attleboro
Mansfield Muni
047° M
Attleboro
V139
North Central State
12 NM
Middleboro
PROVIDENCE
Tauton River
Tauton Muni
V451
V16
THEODORE FRANCIS GREEN STATE
V151
Scituate Reservoir
V167
Fall River Muni
PVD
V167
New Bedford Muni
V475
Mount Hope
Tower
Lakeside
95
12 NM
Quonset State
V146
V139 475E
1
Jamestown
Newport State
227° M
V139
Richmond
V130
Beach Pond
Sakonnet Pt
PROPOSED PROVIDENCE AIRPORT DEPARTURES CONTACT CLEARANCE DELIVERY 121.6 PRIOR TO TAXI
V130
Narragansett
CONTACT QUONSET APPROACH CONTROL
EAST OF PVD 047°/226°RADIAL
118.6-300.4
LEGEND
VFR CHECK POINT
SURFACE TO 5000'
2000' TO 5000'
Point Judith
Rhode Island Sound

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RALEIGH, N.C. RALEIGH-DURHAM AIRPORT
FIELD ELEV 436' MSL


230°-041°
CONTACT RALEIGH
APPROACH CONTROL
118.05-307.9
STAGE III DEPARTURES
ADVISE CLEARANCE DELIVERY
ON 120.1 OF INTENDED
HEADING AND ALTITUDE
20 NM
15 NM
041°
229°
V136
V3
V155
V66
V45
V310
V194
V66S
Butner
Creedmoor
Hillsborough
Durham
Sky Park
DURHAM
Wake-Forest
Chapel Hill
Horace
Williams
RALEIGH
DURHAM
RDU
Wendell-
Knightdale
RALEIGH
Pittsboro
Luther
(Pvt)
Lake
Wheeler
TV-Radio
Tower
Triple W
South Raleigh
Shelba
(Pvt)
Power
Plant
Fuquay Varina
Fuquay-Angier
Angier
SEYMOUR JOHNSON
ECHO MOA
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL
4000' MSL TO 6000' MSL
042°-229°
CONTACT RALEIGH
APPROACH CONTROL
125.3-388.0

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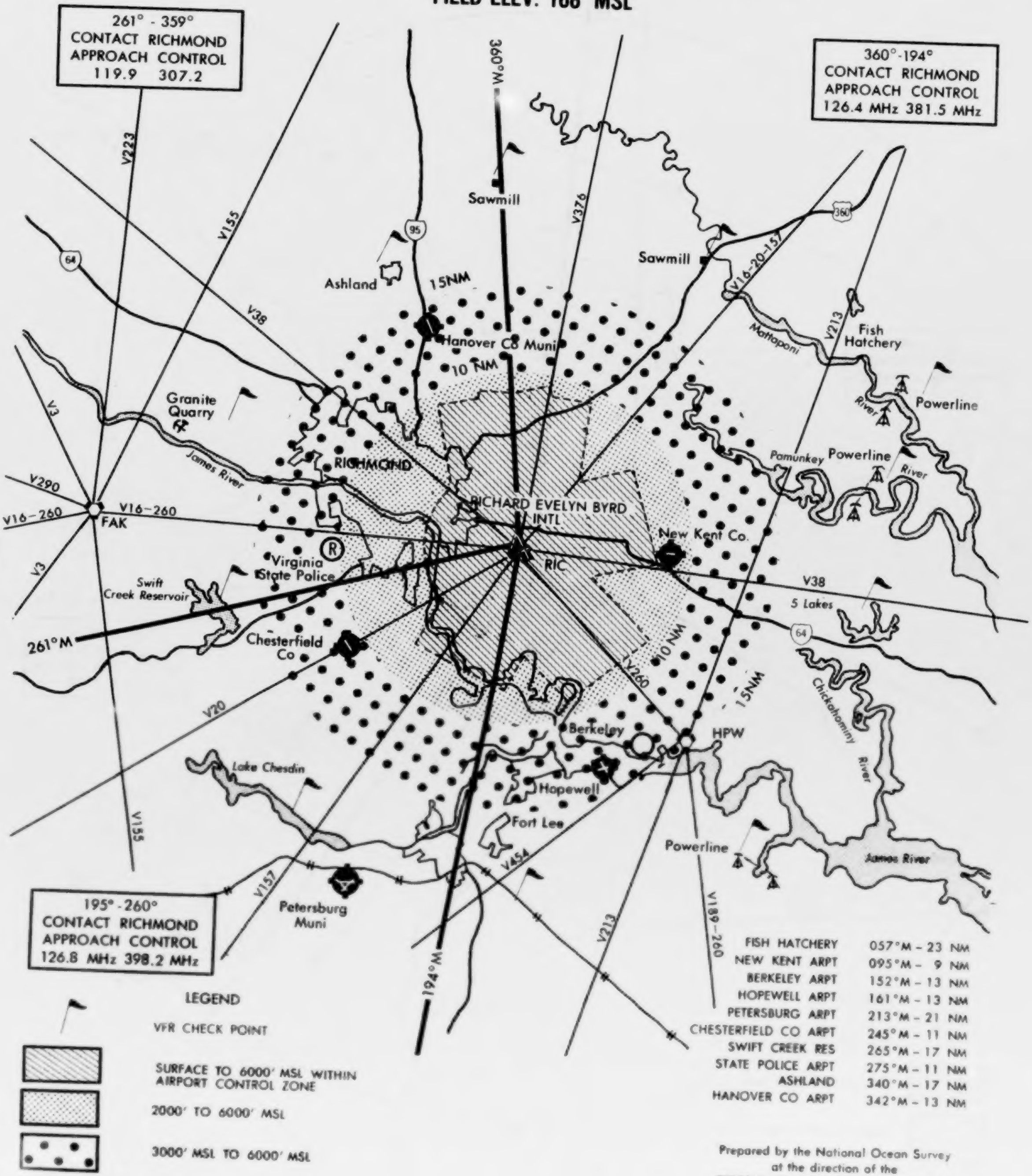
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RICHMOND, VA. RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
FIELD ELEV. 168′ MSL


261° - 359°
CONTACT RICHMOND
APPROACH CONTROL
119.9 307.2
360°-194°
CONTACT RICHMOND
APPROACH CONTROL
126.4 MHz 381.5 MHz
195°-260°
CONTACT RICHMOND
APPROACH CONTROL
126.8 MHz 398.2 MHz
360°M
V223
V155
V376
Sawmill
95
64
Ashland
15NM
Sawmill
360
V16-20-157
V38
Hanover Co Muni
10 NM
V213
Fish Hatchery
Mattaponi
Powerline
River
Granite Quarry
V3
James River
RICHMOND
Pamunkey
Powerline
River
V290
V16-260
V16-260
FAK
RICHARD EVELYN BYRD INTL
New Kent Co.
Virginia State Police
RIC
V38
5 Lakes
Swift Creek Reservoir
261°M
Chesterfield Co
10 NM
V260
15NM
Chickahominy River
V20
Berkeley
HPW
Lake Chesdin
Hopewell
Fort Lee
V155
Powerline
James River
V157
V454
Petersburg Muni
V213
V189-260
194°M
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
2000′ TO 6000′ MSL
3000′ MSL TO 6000′ MSL

FISH HATCHERY	057°M - 23 NM
NEW KENT ARPT	095°M - 9 NM
BERKELEY ARPT	152°M - 13 NM
HOPEWELL ARPT	161°M - 13 NM
PETERSBURG ARPT	213°M - 21 NM
CHESTERFIELD CO ARPT	245°M - 11 NM
SWIFT CREEK RES	265°M - 17 NM
STATE POLICE ARPT	275°M - 11 NM
ASHLAND	340°M - 17 NM
HANOVER CO ARPT	342°M - 13 NM

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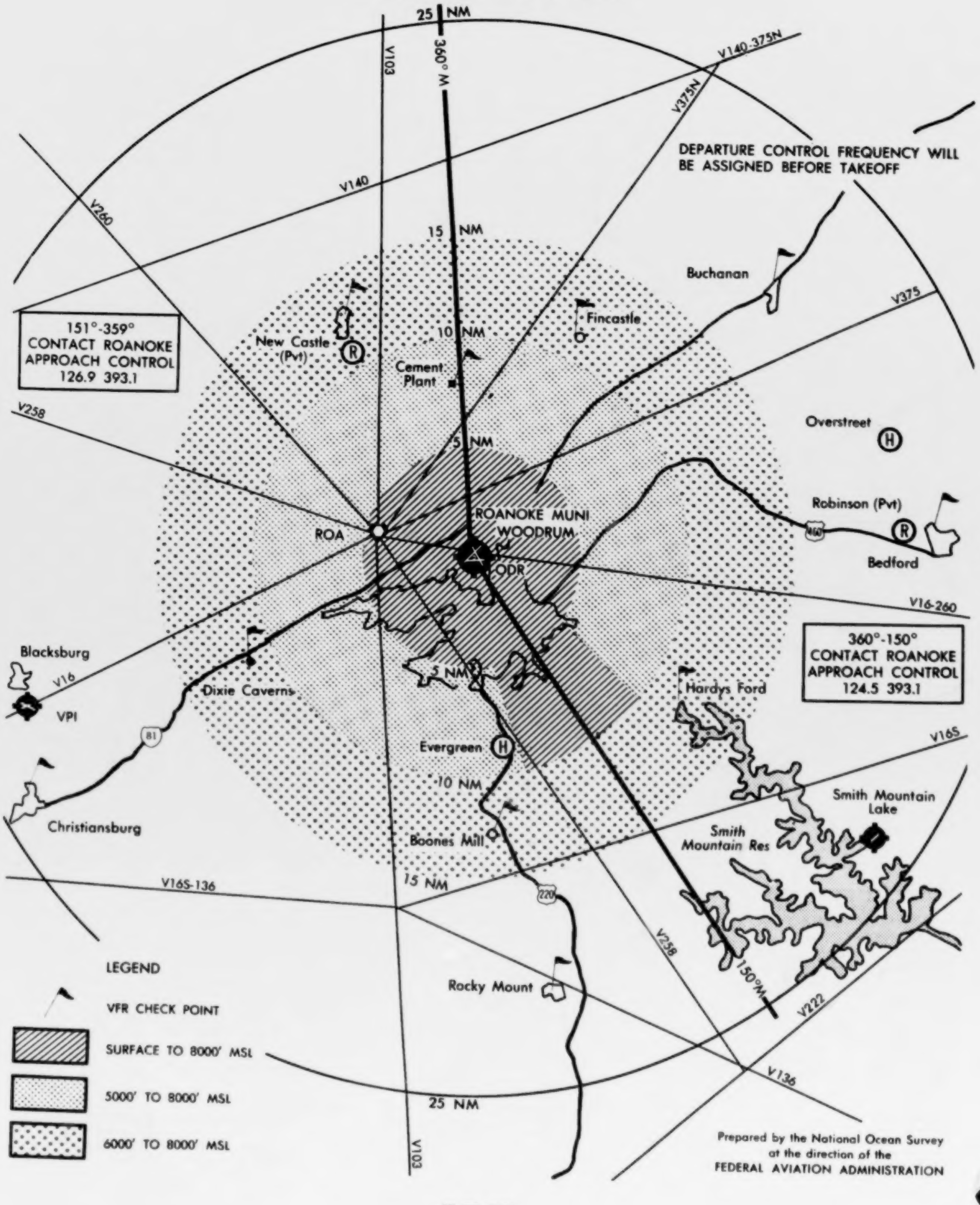
FEDERAL AVIATION ADMINISTRATION

24 SEP 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROANOKE, VIRGINIA
WOODRUM MUNICIPAL AIRPORT
FIELD ELEV 1175′ MSL


25 NM
360° M
V103
V140-375N
V375N
V140
V260
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
15 NM
Buchanan
V375
151°-359°
CONTACT ROANOKE
APPROACH CONTROL
126.9 393.1
Fincastle
10 NM
New Castle (Pvt)
R
Cement Plant
V258
Overstreet
H
5 NM
Robinson (Pvt)
R
460
ROANOKE MUNI
WOODRUM
ROA
ODR
Bedford
V16-260
360°-150°
CONTACT ROANOKE
APPROACH CONTROL
124.5 393.1
Blacksburg
V16
VPI
Dixie Caverns
5 NM
Hardys Ford
81
Evergreen
H
V165
10 NM
Smith Mountain Lake
Christiansburg
Smith Mountain Res
Boones Mill
V165-136
15 NM
220
V258
150°M
V222
Rocky Mount
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL
5000′ TO 8000′ MSL
6000′ TO 8000′ MSL
V136
25 NM
V103

Prepared by the National Ocean Survey
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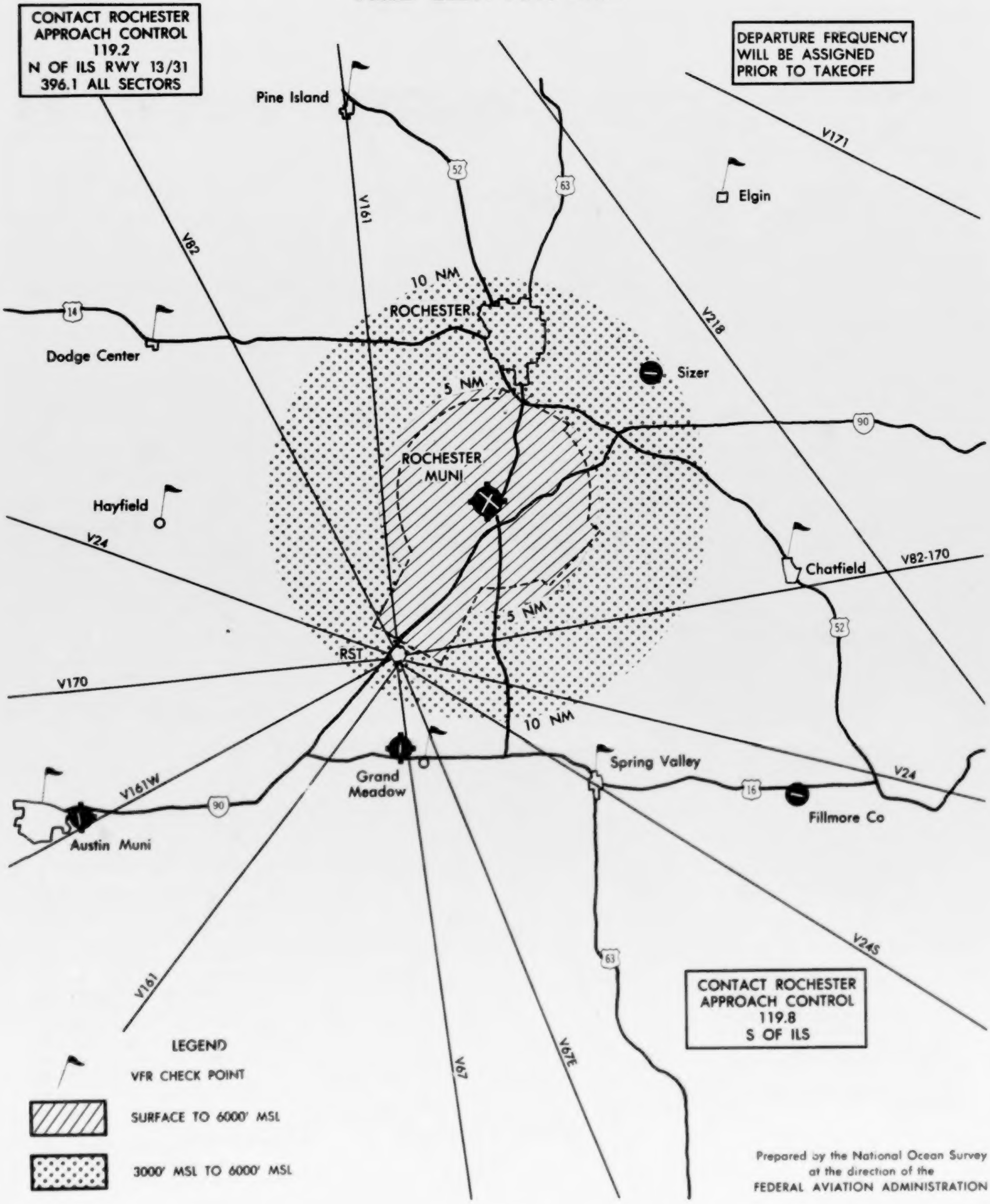
FEDERAL AVIATION ADMINISTRATION

13 JUL 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROCHESTER, MINNESOTA
ROCHESTER MUNI
FIELD ELEV. 1317' MSL


CONTACT ROCHESTER APPROACH CONTROL 119.2 N OF ILS RWY 13/31 396.1 ALL SECTORS
DEPARTURE FREQUENCY WILL BE ASSIGNED PRIOR TO TAKEOFF
Pine Island
52
63
V161
V82
V171
Elgin
V218
10 NM
ROCHESTER
14
Dodge Center
Sizer
5 NM
90
ROCHESTER MUNI
Hayfield
V24
Chatfield
V82-170
52
5 NM
RST
V170
10 NM
Spring Valley
V24
Grand Meadow
V161W
90
16
Fillmore Co
Austin Muni
63
V24S
CONTACT ROCHESTER APPROACH CONTROL 119.8 S OF ILS
V161
V67
V67E
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
3000' MSL TO 6000' MSL

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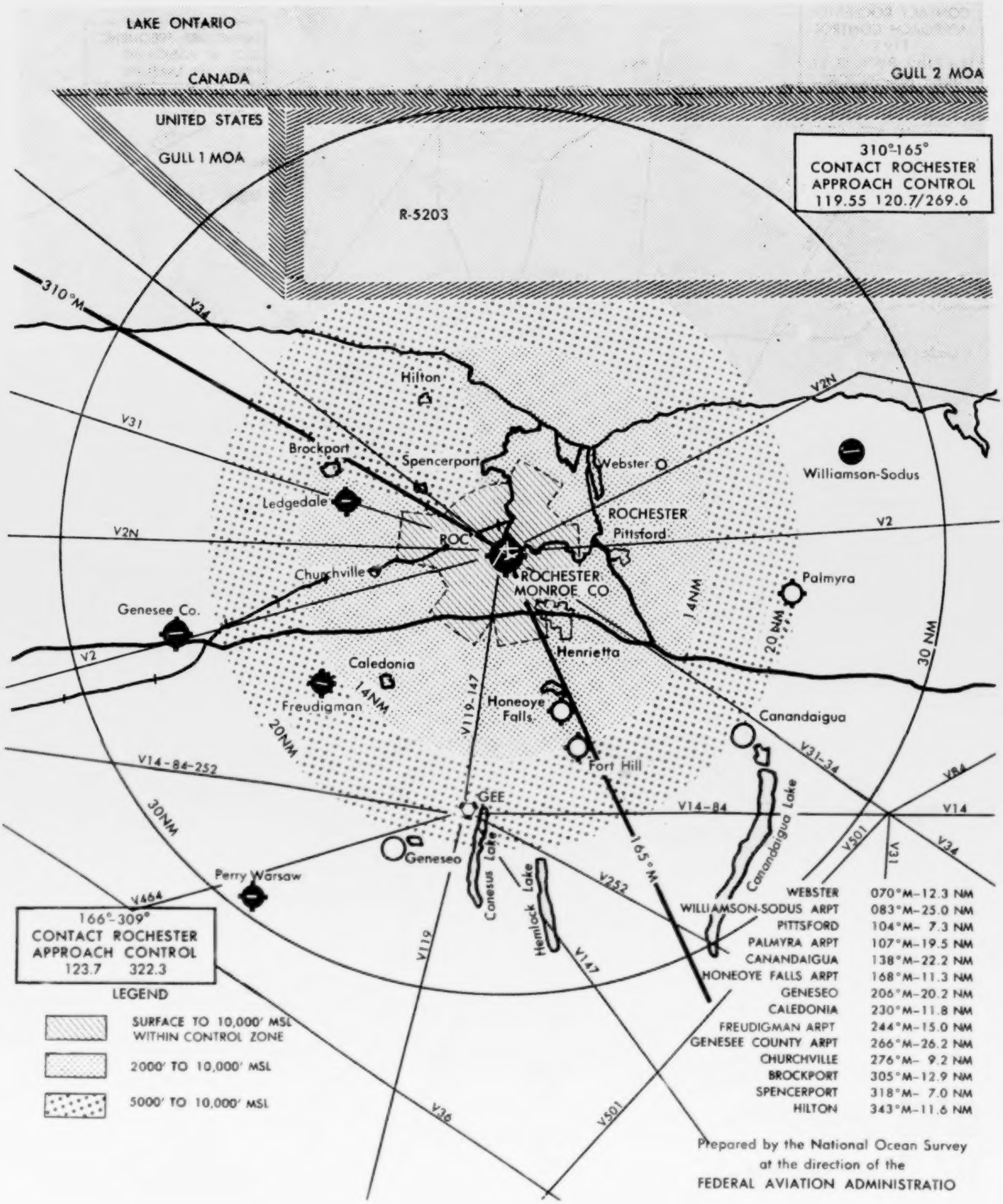
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROCHESTER, NEW YORK, ROCHESTER MONROE COUNTY AIRPORT
FIELD ELEV. 559′ MSL


LAKE ONTARIO
CANADA
UNITED STATES
GULL 1 MOA
GULL 2 MOA
R-5203
310°M
165°M
V34
V31
V2N
V2
V14-84-252
V14-84
V14
V84
V31-34
V501
V252
V147
V119
V119-147
V36
V464
Hilton
Brockport
Spencerport
Ledgedale
Webster
Williamson-Sodus
ROCHESTER
Pittsford
ROC
ROCHESTER MONROE CO
Churchville
Genesee Co.
Palmyra
Henrietta
Caledonia
Freudigman
Honeoye Falls
Fort Hill
Canandaigua
GEE
Geneseo
Perry Warsaw
Conesus Lake
Hemlock Lake
Canandaigua Lake
14NM
20NM
30NM

310°-165°
CONTACT ROCHESTER
APPROACH CONTROL
119.55 120.7/269.6

166°-309°
CONTACT ROCHESTER
APPROACH CONTROL
123.7 322.3

LEGEND

▨ SURFACE TO 10,000′ MSL WITHIN CONTROL ZONE

▒ 2000′ TO 10,000′ MSL

░ 5000′ TO 10,000′ MSL

WEBSTER	070°M–12.3 NM
WILLIAMSON-SODUS ARPT	083°M–25.0 NM
PITTSFORD	104°M– 7.3 NM
PALMYRA ARPT	107°M–19.5 NM
CANANDAIGUA	138°M–22.2 NM
HONEOYE FALLS ARPT	168°M–11.3 NM
GENESEO	206°M–20.2 NM
CALEDONIA	230°M–11.8 NM
FREUDIGMAN ARPT	244°M–15.0 NM
GENESEE COUNTY ARPT	266°M–26.2 NM
CHURCHVILLE	276°M– 9.2 NM
BROCKPORT	305°M–12.9 NM
SPENCERPORT	318°M– 7.0 NM
HILTON	343°M–11.6 NM

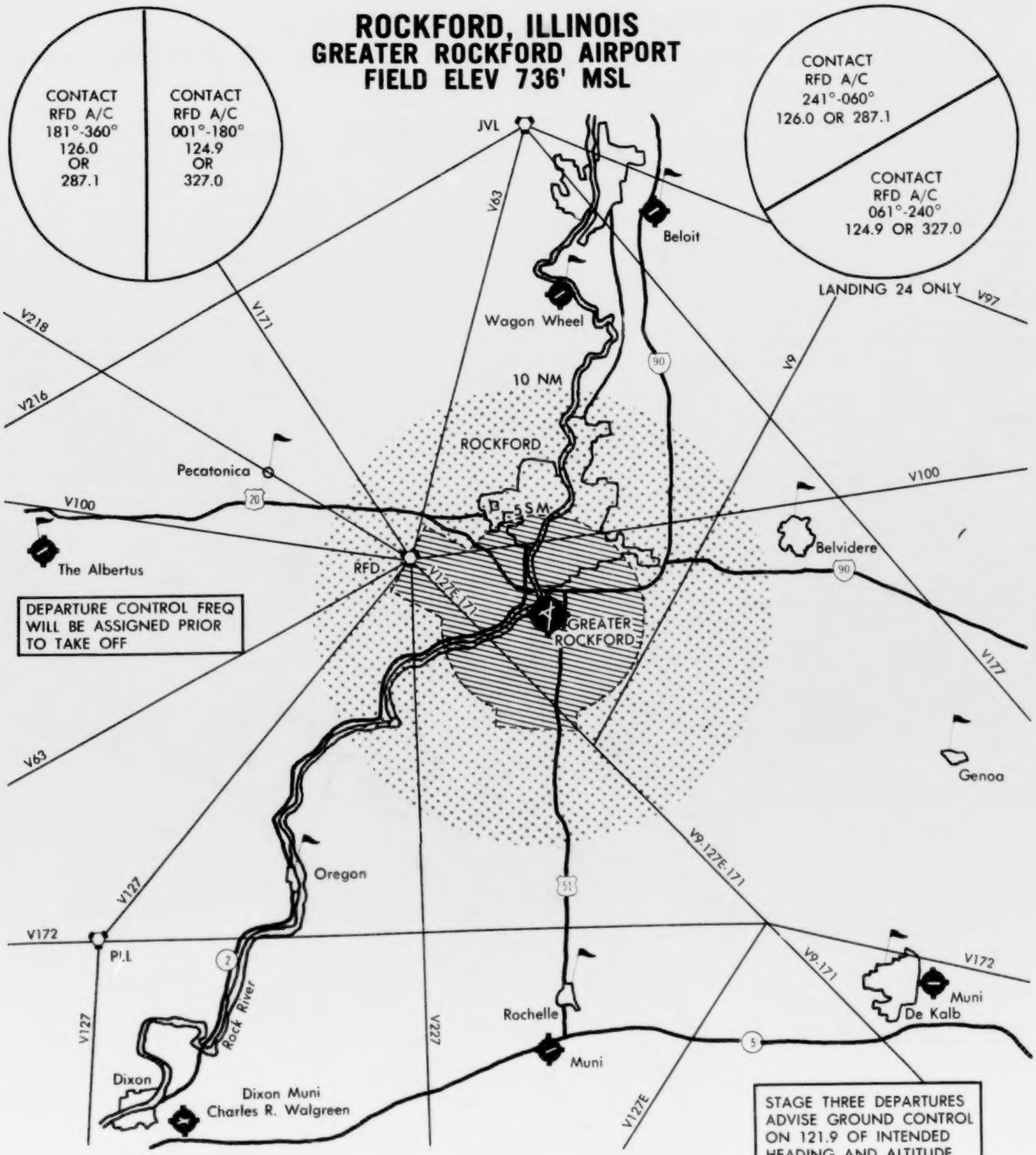
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATIO

29 NOV 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

ROCKFORD, ILLINOIS
GREATER ROCKFORD AIRPORT
FIELD ELEV 736' MSL


JVL
V63
V171
V218
V216
Beloit
Wagon Wheel
LANDING 24 ONLY
V97
V9
90
10 NM
ROCKFORD
Pecatonica
V100
20
V100
RFD
V127E-171
GREATER ROCKFORD
Belvidere
90
The Albertus
V177
Genoa
V63
V9-127E-171
Oregon
51
V127
V172
PLL
2
Rock River
V127
V227
Rochelle
Muni
V9-171
V172
Muni
De Kalb
5
Dixon
Dixon Muni
Charles R. Walgreen
V127E

CONTACT
RFD A/C
181°-360°
126.0
OR
287.1

CONTACT
RFD A/C
001°-180°
124.9
OR
327.0

CONTACT
RFD A/C
241°-060°
126.0 OR 287.1

CONTACT
RFD A/C
061°-240°
124.9 OR 327.0

DEPARTURE CONTROL FREQ WILL BE ASSIGNED PRIOR TO TAKE OFF

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDED HEADING AND ALTITUDE

LEGEND

- ⚑ VFR CHECK POINT
- ▨ SURFACE TO 6000' MSL
- ░ 2000' TO 6000' MSL

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FEDERAL AVIATION ADMINISTRATION

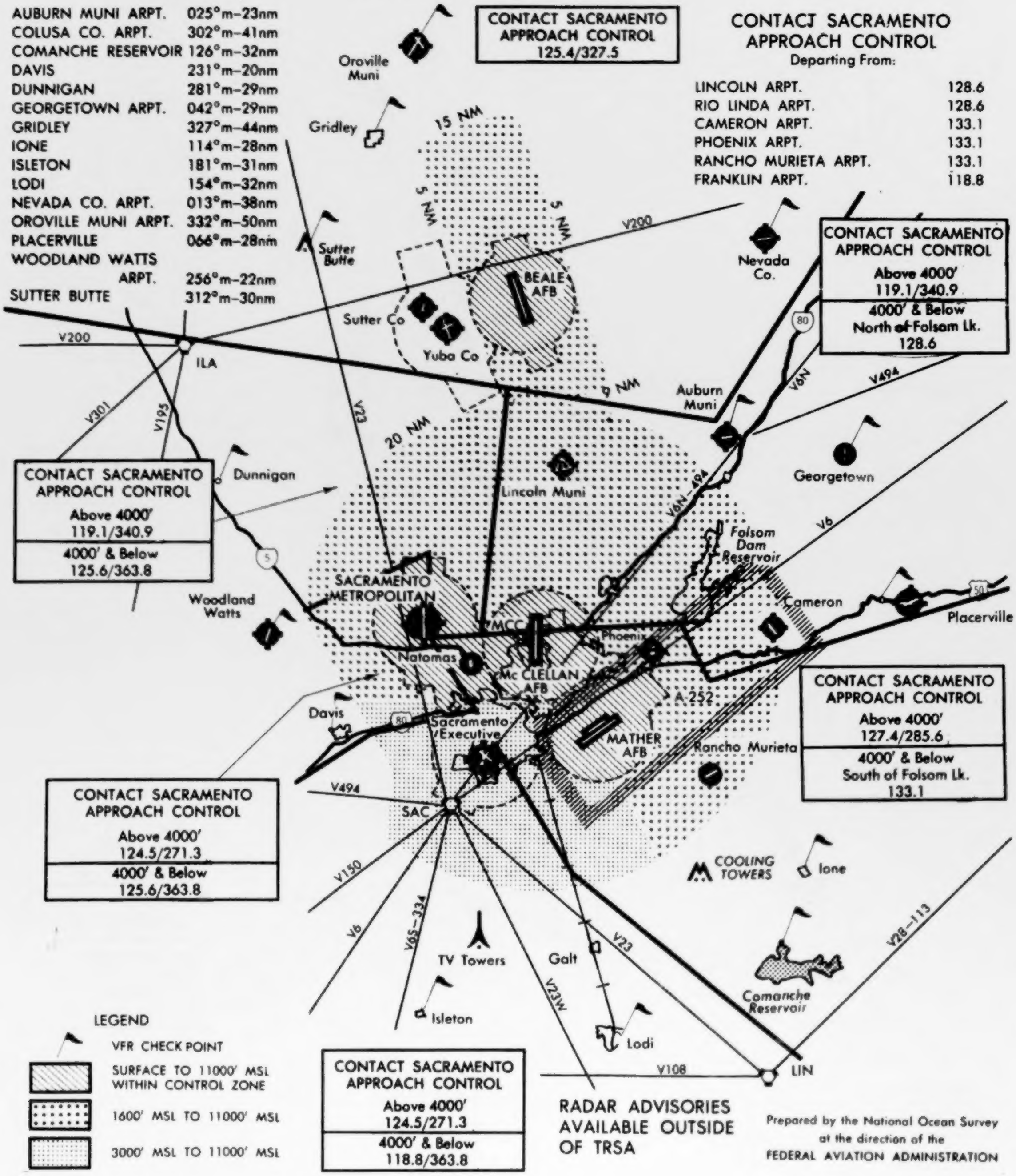
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SACRAMENTO VALLEY, CALIFORNIA

MC CLELLAN AFB BEALE AFB MATHER AFB SACRAMENTO METROPOLITAN

FIELD ELEVATION 76′ MSL



VFR CHECK POINTS
(From McClellan AFB)

AUBURN MUNI ARPT.	025°m–23nm
COLUSA CO. ARPT.	302°m–41nm
COMANCHE RESERVOIR	126°m–32nm
DAVIS	231°m–20nm
DUNNIGAN	281°m–29nm
GEORGETOWN ARPT.	042°m–29nm
GRIDLEY	327°m–44nm
IONE	114°m–28nm
ISLETON	181°m–31nm
LODI	154°m–32nm
NEVADA CO. ARPT.	013°m–38nm
OROVILLE MUNI ARPT.	332°m–50nm
PLACERVILLE	066°m–28nm
WOODLAND WATTS ARPT.	256°m–22nm
SUTTER BUTTE	312°m–30nm

CONTACT SACRAMENTO APPROACH CONTROL
125.4/327.5

CONTACT SACRAMENTO APPROACH CONTROL
Departing From:

LINCOLN ARPT.	128.6
RIO LINDA ARPT.	128.6
CAMERON ARPT.	133.1
PHOENIX ARPT.	133.1
RANCHO MURIETA ARPT.	133.1
FRANKLIN ARPT.	118.8

CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′
119.1/340.9
4000′ & Below
North of Folsom Lk.
128.6

CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′
119.1/340.9
4000′ & Below
125.6/363.8

CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′
127.4/285.6
4000′ & Below
South of Folsom Lk.
133.1

CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′
124.5/271.3
4000′ & Below
125.6/363.8

CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′
124.5/271.3
4000′ & Below
118.8/363.8

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 11000′ MSL WITHIN CONTROL ZONE
⁘	1600′ MSL TO 11000′ MSL
░	3000′ MSL TO 11000′ MSL

RADAR ADVISORIES AVAILABLE OUTSIDE OF TRSA

Oroville Muni
Gridley
15 NM
5 NM
5 NM
V200
Sutter Butte
BEALE AFB
Sutter Co
Yuba Co
V200
ILA
V301
V195
V23
20 NM
9 NM
Nevada Co.
80
Auburn Muni
V6N
V494
Georgetown
Dunnigan
Lincoln Muni
V6N-494
Folsom Dam Reservoir
V6
Cameron
50
Placerville
5
Woodland Watts
SACRAMENTO METROPOLITAN
MCC
Phoenix
Natomas
Mc CLELLAN AFB
A-252
Davis
80
Sacramento Executive
MATHER AFB
Rancho Murieta
V494
SAC
COOLING TOWERS
Ione
V150
V6
V6S-334
TV Towers
Galt
V23
V23W
V28-113
Isleton
Lodi
Comanche Reservoir
V108
LIN

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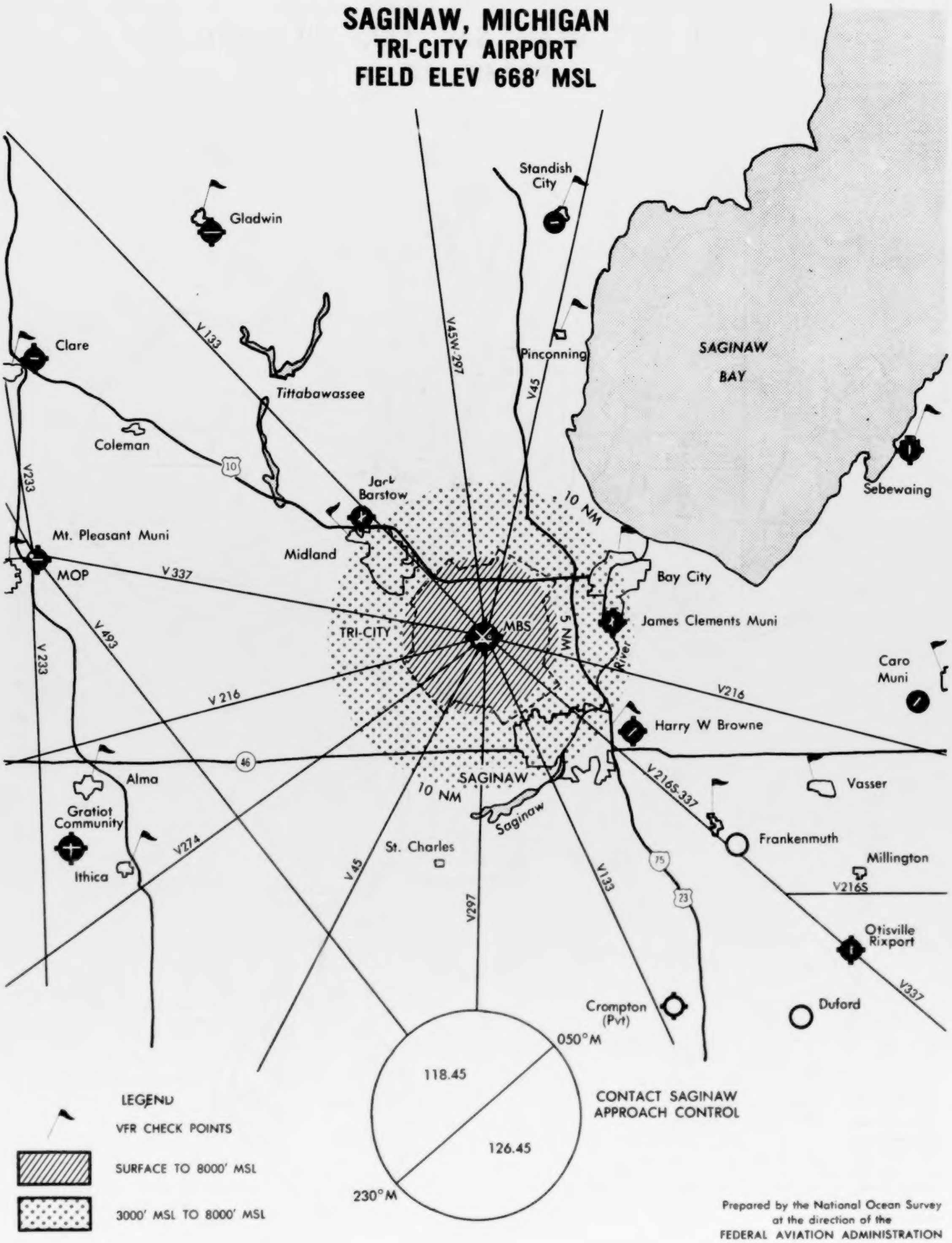
FEDERAL AVIATION ADMINISTRATION

26 JAN 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAGINAW, MICHIGAN
TRI-CITY AIRPORT
FIELD ELEV 668′ MSL


Standish City
Gladwin
Clare
Tittabawassee
Coleman
Pinconning
SAGINAW BAY
Sebewaing
Jack Barstow
Midland
Mt. Pleasant Muni
MOP
Bay City
James Clements Muni
TRI-CITY
MBS
Caro Muni
Harry W Browne
Vasser
Alma
Gratiot Community
Ithica
SAGINAW
Saginaw
River
St. Charles
Frankenmuth
Millington
Otisville Rixport
Crompton (Pvt)
Duford
10 NM
5 NM
10 NM
V133
V45W 297
V45
V233
V337
V493
V216
V216S-337
V216S
V274
V297
V133
V337
10
46
75
23
118.45
126.45
050°M
230°M
CONTACT SAGINAW APPROACH CONTROL
LEGEND
VFR CHECK POINTS
SURFACE TO 8000′ MSL
3000′ MSL TO 8000′ MSL

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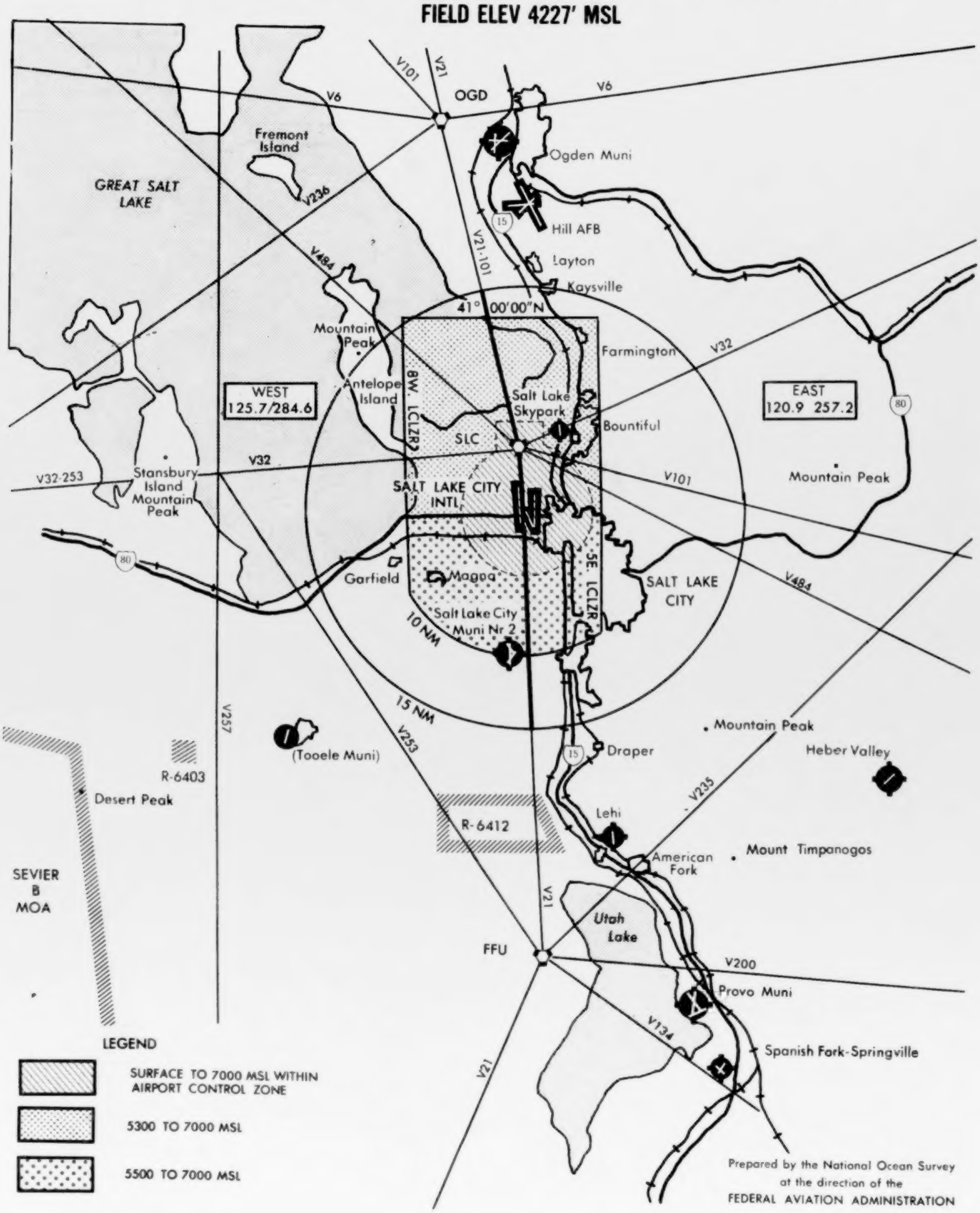
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SALT LAKE CITY, UTAH, SALT LAKE CITY INTL ARPT

FIELD ELEV 4227′ MSL


V101
V21
OGD
V6
V6
Fremont Island
GREAT SALT LAKE
V236
Ogden Muni
15
Hill AFB
V21-101
Layton
Kaysville
V484
41° 00′00″N
Mountain Peak
Farmington
V32
Antelope Island
8W. LCLZR
WEST
125.7/284.6
Salt Lake Skypark
EAST
120.9 257.2
80
Bountiful
SLC
V32-253
Stansbury Island Mountain Peak
V32
SALT LAKE CITY INTL
V101
Mountain Peak
80
5E. LCLZR
Garfield
Magna
SALT LAKE CITY
V484
Salt Lake City Muni Nr 2
10 NM
15 NM
V257
V253
(Tooele Muni)
Mountain Peak
15
Draper
Heber Valley
R-6403
Desert Peak
V235
R-6412
Lehi
American Fork
Mount Timpanogos
SEVIER B MOA
V21
Utah Lake
FFU
V200
Provo Muni
V134
Spanish Fork-Springville
V21

LEGEND

▨ SURFACE TO 7000 MSL WITHIN AIRPORT CONTROL ZONE

▨ 5300 TO 7000 MSL

▨ 5500 TO 7000 MSL

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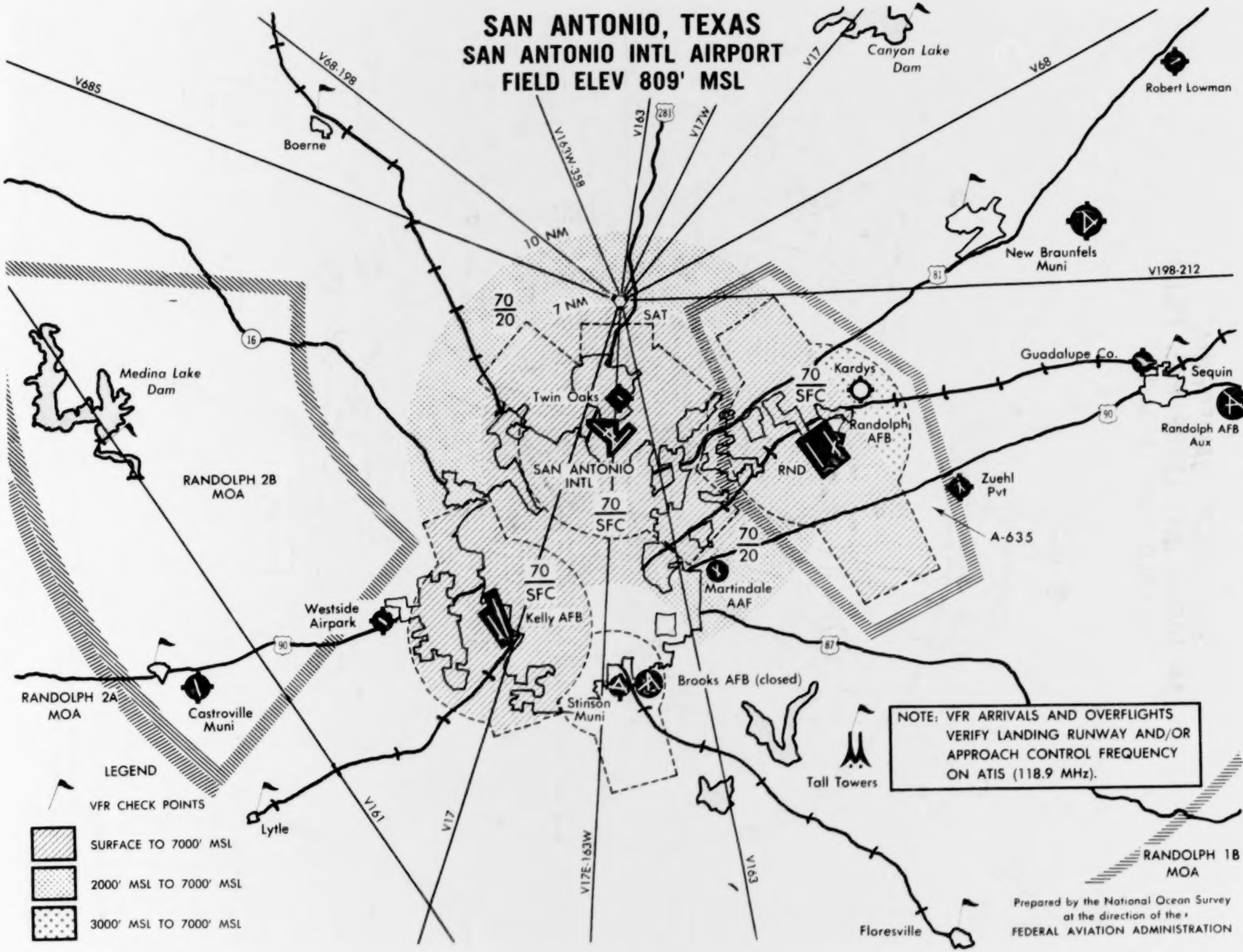
FEDERAL AVIATION ADMINISTRATION

22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TRSA-103

SAN ANTONIO, TEXAS
SAN ANTONIO INTL AIRPORT
FIELD ELEV 809' MSL


V68S
V68-198
V163W-358
V163
281
V17W
V17
Canyon Lake Dam
V68
Robert Lowman
Boerne
10 NM
7 NM
70/20
SAT
New Braunfels Muni
81
V198-212
16
Medina Lake Dam
Twin Oaks
SAN ANTONIO INTL
70/SFC
Kardys
Randolph AFB
RND
Guadalupe Co.
Sequin
90
Randolph AFB Aux
Zuehl Pvt
A-635
RANDOLPH 2B MOA
70/20
Martindale AAF
70/SFC
Kelly AFB
Westside Airpark
90
87
Brooks AFB (closed)
Stinson Muni
RANDOLPH 2A MOA
Castroville Muni
Tall Towers
Lytle
V161
V17
V17E-163W
V163
RANDOLPH 1B MOA
Floresville

NOTE: VFR ARRIVALS AND OVERFLIGHTS VERIFY LANDING RUNWAY AND/OR APPROACH CONTROL FREQUENCY ON ATIS (118.9 MHz).

LEGEND

⚑	VFR CHECK POINTS
▨	SURFACE TO 7000' MSL
▩	2000' MSL TO 7000' MSL
░	3000' MSL TO 7000' MSL

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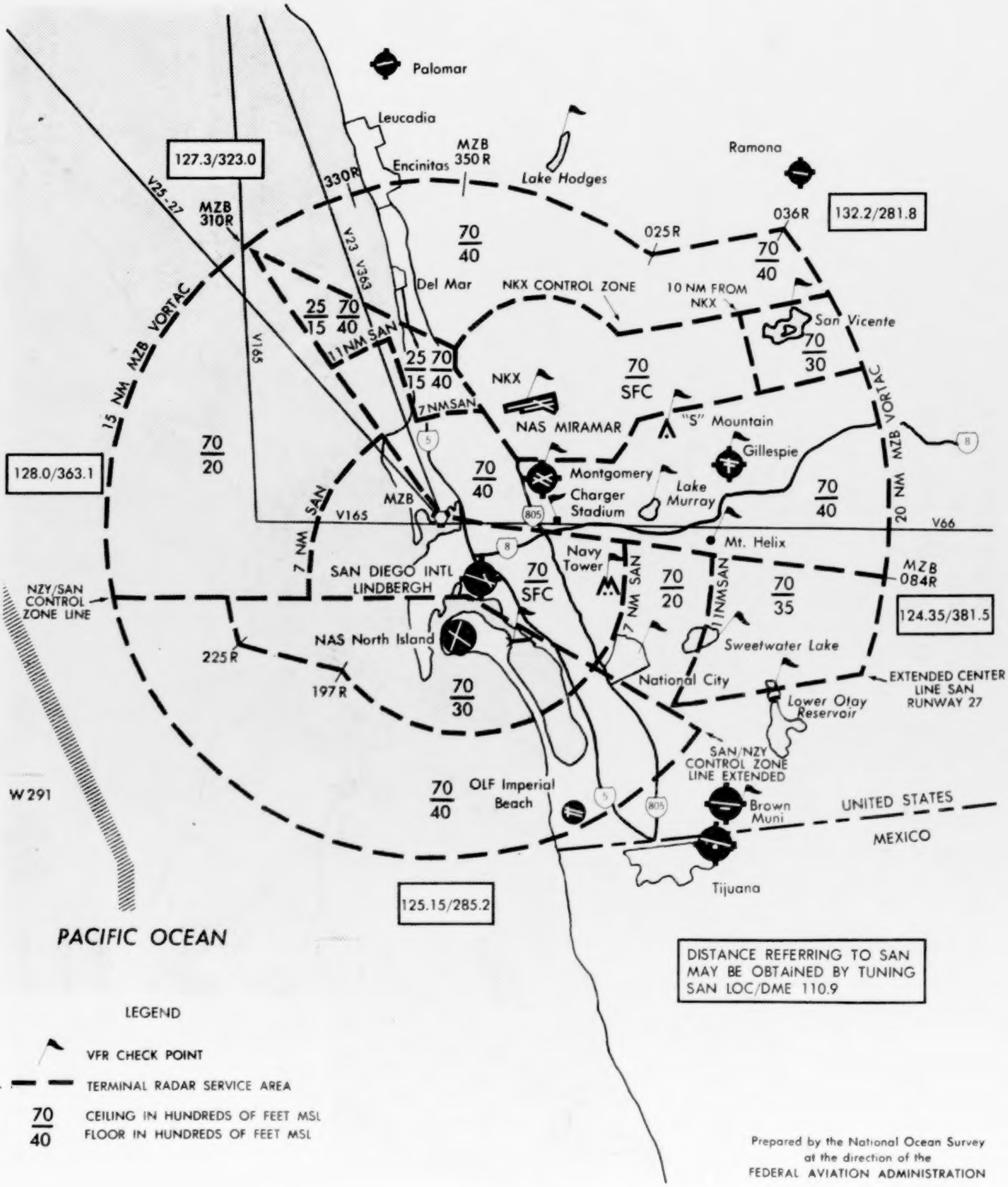
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAN DIEGO, CALIFORNIA
SAN DIEGO INTL-LINDBERGH FIELD
FIELD ELEV 15' MSL


Palomar
Leucadia
127.3/323.0
V25-27
330R
Encinitas
MZB 350 R
Lake Hodges
Ramona
132.2/281.8
036R
025R
MZB 310R
V23 V363
70/40
Del Mar
NKX CONTROL ZONE
10 NM FROM NKX
San Vicente
25/15 70/40
11NM SAN
25/15 70/40
V165
70/SFC
70/30
15 NM MZB VORTAC
NKX
7NMSAN
NAS MIRAMAR
"S" Mountain
20 NM MZB VORTAC
5
Gillespie
8
128.0/363.1
70/20
70/40
Montgomery
Charger Stadium
Lake Murray
70/40
7 NM SAN
MZB
V165
805
Mt. Helix
V66
8
Navy Tower
MZB 084R
SAN DIEGO INTL LINDBERGH
70/SFC
7 NM SAN
70/20
11NMSAN
70/35
124.35/381.5
NZY/SAN CONTROL ZONE LINE
NAS North Island
Sweetwater Lake
225R
197R
70/30
National City
EXTENDED CENTER LINE SAN RUNWAY 27
Lower Otay Reservoir
SAN/NZY CONTROL ZONE LINE EXTENDED
W291
70/40
OLF Imperial Beach
5
805
Brown Muni
UNITED STATES
MEXICO
Tijuana
125.15/285.2
PACIFIC OCEAN

DISTANCE REFERRING TO SAN
MAY BE OBTAINED BY TUNING
SAN LOC/DME 110.9

LEGEND

VFR CHECK POINT

TERMINAL RADAR SERVICE AREA

70 CEILING IN HUNDREDS OF FEET MSL
40 FLOOR IN HUNDREDS OF FEET MSL

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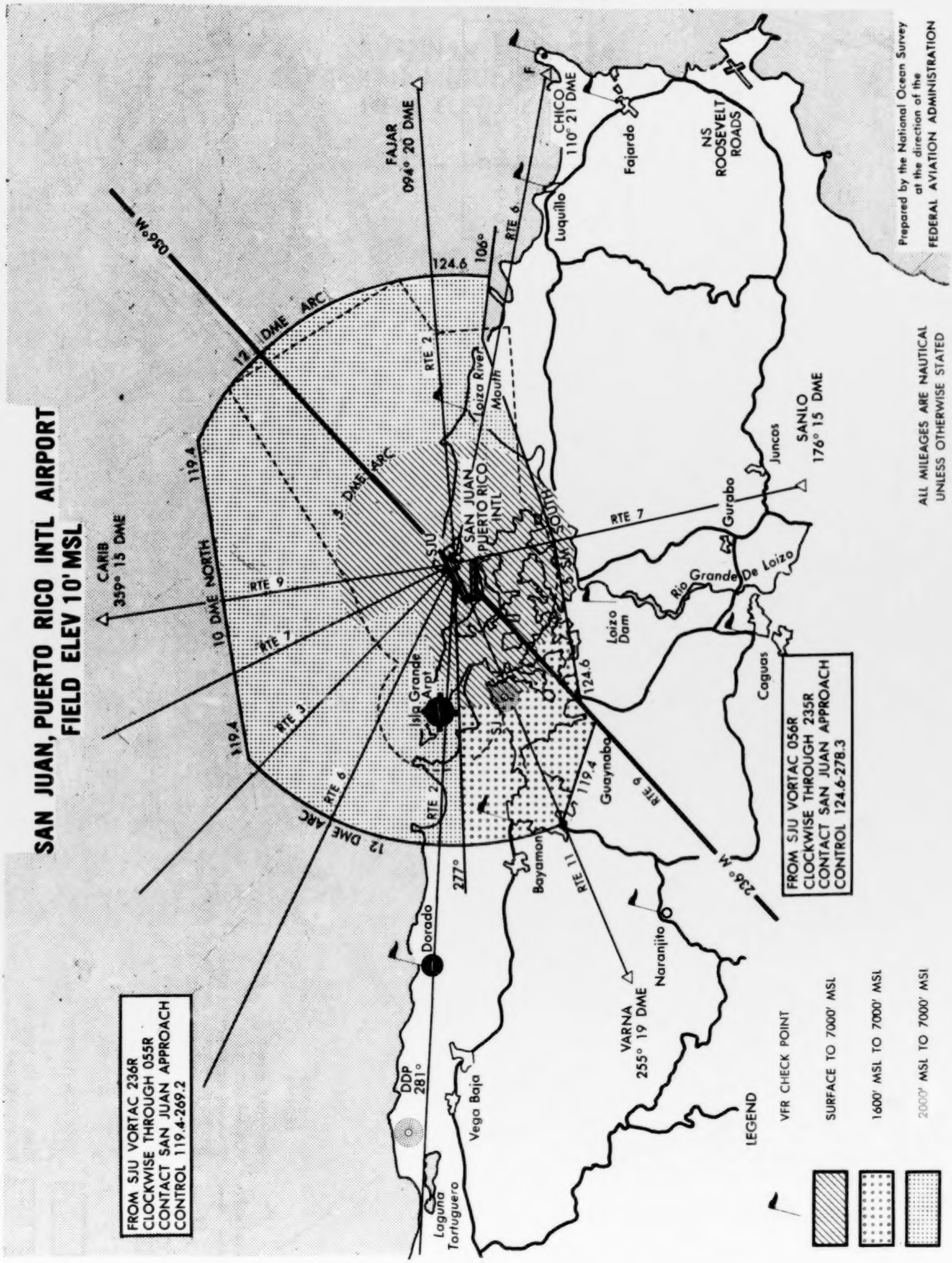
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)



SAN JUAN, PUERTO RICO INTL AIRPORT
FIELD ELEV 10' MSL

FROM SJU VORTAC 236R
CLOCKWISE THROUGH 055R
CONTACT SAN JUAN APPROACH
CONTROL 119.4-269.2

FROM SJU VORTAC 056R
CLOCKWISE THROUGH 235R
CONTACT SAN JUAN APPROACH
CONTROL 124.6-278.3

ALL MILEAGES ARE NAUTICAL
UNLESS OTHERWISE STATED

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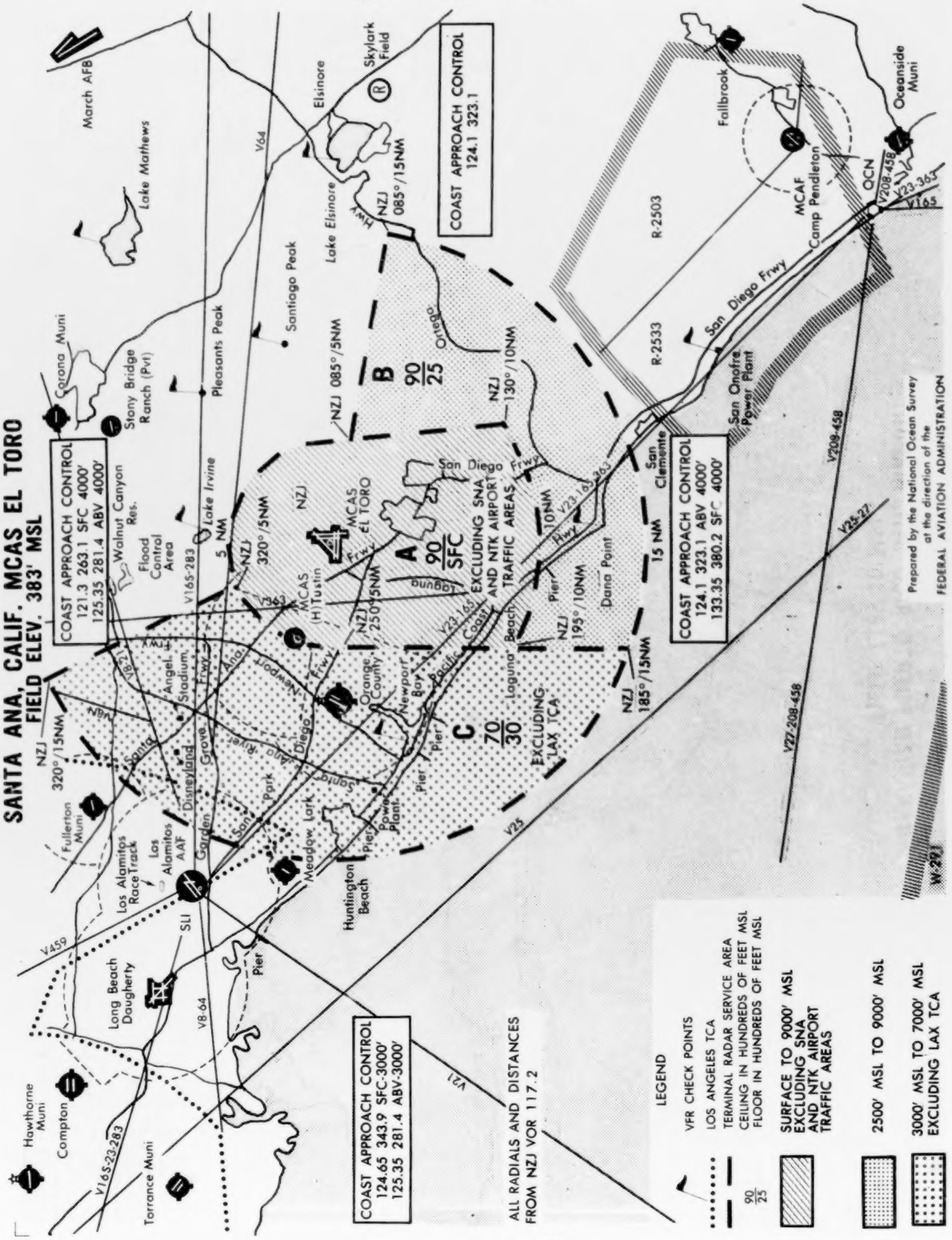
CARIB
359° 13 DME
FAJAR
094° 20 DME
CHICO
110° 21 DME
SANLO
176° 15 DME
VARNA
255° 19 DME
DDP
281°
056°M
236°M
12 DME ARC
10 DME NORTH
3 DME ARC
3 SM SOUTH
124.6
119.4
106°
277°
RTE 2
RTE 3
RTE 6
RTE 7
RTE 9
RTE 11
SJU
SAN JUAN PUERTO RICO INTL
SJ
Isla Grande Arpt
Loiza River
Mouth
Loiza Dam
Rio Grande De Loizo
Luquillo
Fajardo
NS ROOSEVELT ROADS
Juncos
Gurabo
Caguas
Guaynabo
Bayamon
Naranjito
Dorado
Vega Baja
Laguna Tortuguero
LEGEND
VFR CHECK POINT
SURFACE TO 7000' MSL
1600' MSL TO 7000' MSL
2000' MSL TO 7000' MSL

SANTA ANA, CALIF. MCAS EL TORO
FIELD ELEV. 383' MSL


COAST APPROACH CONTROL
121.3 263.1 SFC 4000'
125.35 281.4 ABV 4000'
COAST APPROACH CONTROL
124.1 323.1
COAST APPROACH CONTROL
124.1 323.1 ABV 4000'
133.35 380.2 SFC 4000'
COAST APPROACH CONTROL
124.65 343.9 SFC-3000'
125.35 281.4 ABV-3000'
A
90/SFC
EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
B
90/25
C
70/30
EXCLUDING LAX TCA
NZJ 320°/15NM
NZJ 320°/5NM
NZJ 085°/5NM
NZJ 085°/15NM
NZJ 130°/10NM
NZJ 250°/5NM
NZJ 195°/10NM
NZJ 185°/15NM
5 NM
10NM
15 NM
MCAS EL TORO
MCAS (H)Tustin
Orange County
Fullerton Muni
Los Alamitos AAF
Los Alamitos Race Track
SLI
Long Beach Daugherty
Hawthorne Muni
Compton
Torrance Muni
Huntington Beach
Meadow Lark
Corona Muni
Stony Bridge Ranch (Pvt)
March AFB
Lake Mathews
Walnut Canyon Res.
Flood Control Area
Lake Irvine
Pleasants Peak
Santiago Peak
Lake Elsinore
Elsinore
Skylark Field
Ortega Hwy
San Diego Frwy
San Clemente
San Onofre Power Plant
Dana Point
Laguna Beach
Newport Bay
Pacific Coast Hwy
Santa Ana Frwy
Newport Frwy
Santa Ana River
Garden Grove Frwy
Disneyland
Angel Stadium
Power Plant
Pier
R-2503
R-2533
MCAF Camp Pendleton
Fallbrook
Oceanside Muni
QCN
V8-64
V8-21
V21
V25
V64
V363
V459
V165-283
V16S-23-283
V23-165
V23-165-363
V23-363
V165
V208-458
V208-458
V25-27
V27-208-458
W-291
LEGEND
VFR CHECK POINTS
LOS ANGELES TCA
TERMINAL RADAR SERVICE AREA
90/25 CEILING IN HUNDREDS OF FEET MSL FLOOR IN HUNDREDS OF FEET MSL
SURFACE TO 9000' MSL EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
2500' MSL TO 9000' MSL
3000' MSL TO 7000' MSL EXCLUDING LAX TCA

ALL RADIALS AND DISTANCES FROM NZJ VOR 117.2

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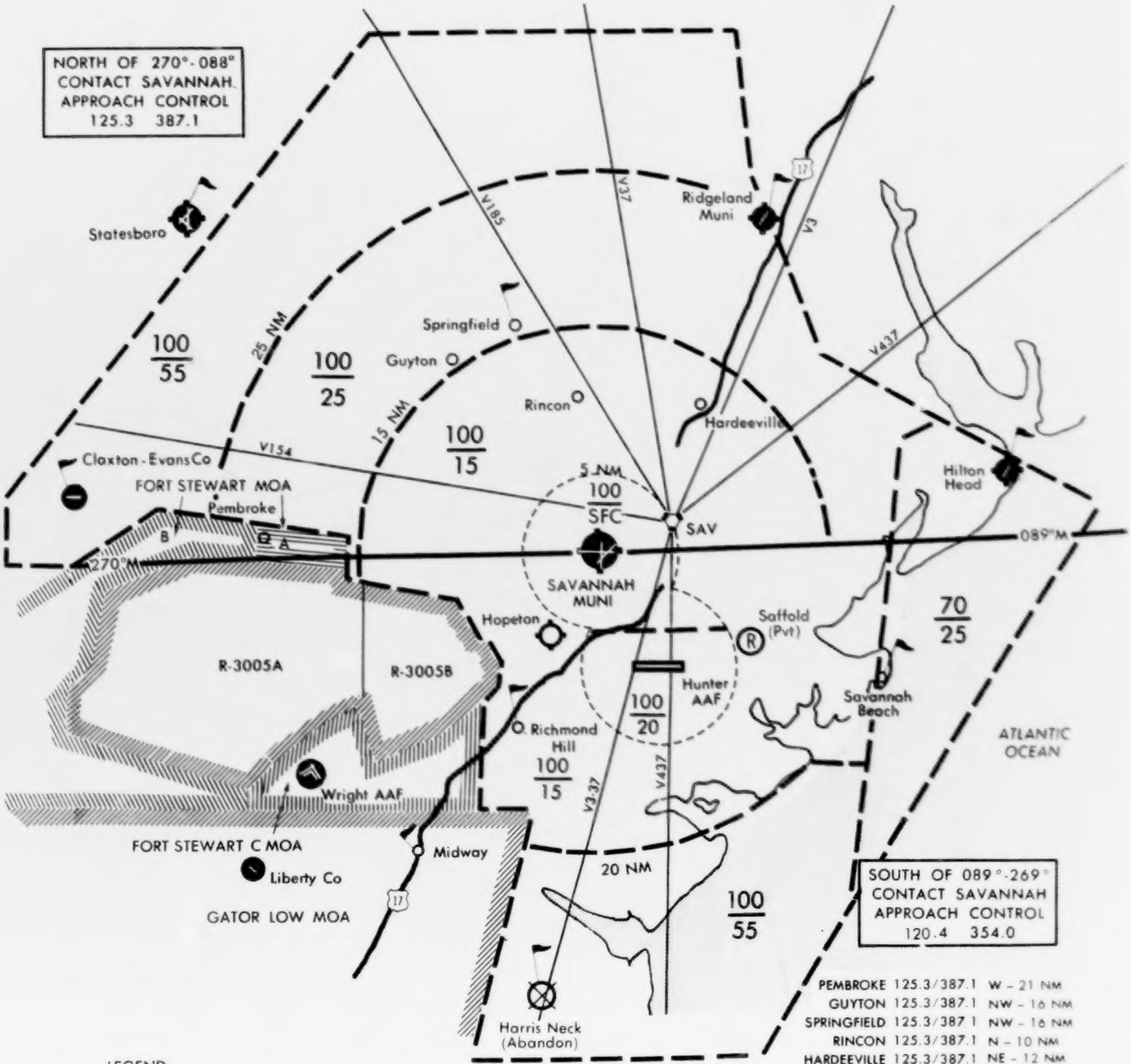
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAVANNAH, GEORGIA
SAVANNAH MUNICIPAL AIRPORT
FIELD ELEV 50' MSL



Statesboro
Ridgeland Muni
V185
V37
V3
17
Springfield
Guyton
Rincon
Hardeeville
V437
25 NM
15 NM
5 NM
100/55
100/25
100/15
100/SFC
V154
Claxton - Evans Co
FORT STEWART MOA
Pembroke
B
A
270°M
SAV
089°M
Hilton Head
SAVANNAH MUNI
Hopeton
Saffold (Pvt)
70/25
R-3005A
R-3005B
Hunter AAF
100/20
Savannah Beach
ATLANTIC OCEAN
Richmond Hill
100/15
V3-37
V437
Wright AAF
FORT STEWART C MOA
Midway
Liberty Co
GATOR LOW MOA
17
20 NM
100/55
Harris Neck (Abandon)

NORTH OF 270°-088°
CONTACT SAVANNAH
APPROACH CONTROL
125.3 387.1

SOUTH OF 089°-269°
CONTACT SAVANNAH
APPROACH CONTROL
120.4 354.0

PEMBROKE	125.3/387.1	W - 21 NM
GUYTON	125.3/387.1	NW - 16 NM
SPRINGFIELD	125.3/387.1	NW - 16 NM
RINCON	125.3/387.1	N - 10 NM
HARDEEVILLE	125.3/387.1	NE - 12 NM
SAVANNAH BEACH	120.4/354.0	SE - 20 NM
RICHMOND HILL	120.4/354.0	SW - 12 NM
HARRIS NECK (ABANDONED)	120.4/354.0	S - 29 NM
MIDWAY	120.4/354.0	SW - 22 NM

LEGEND

100	CEILING IN HUNDREDS OF FEET MSL
25	FLOOR IN HUNDREDS OF FEET MSL
⚑	VFR CHECK POINTS

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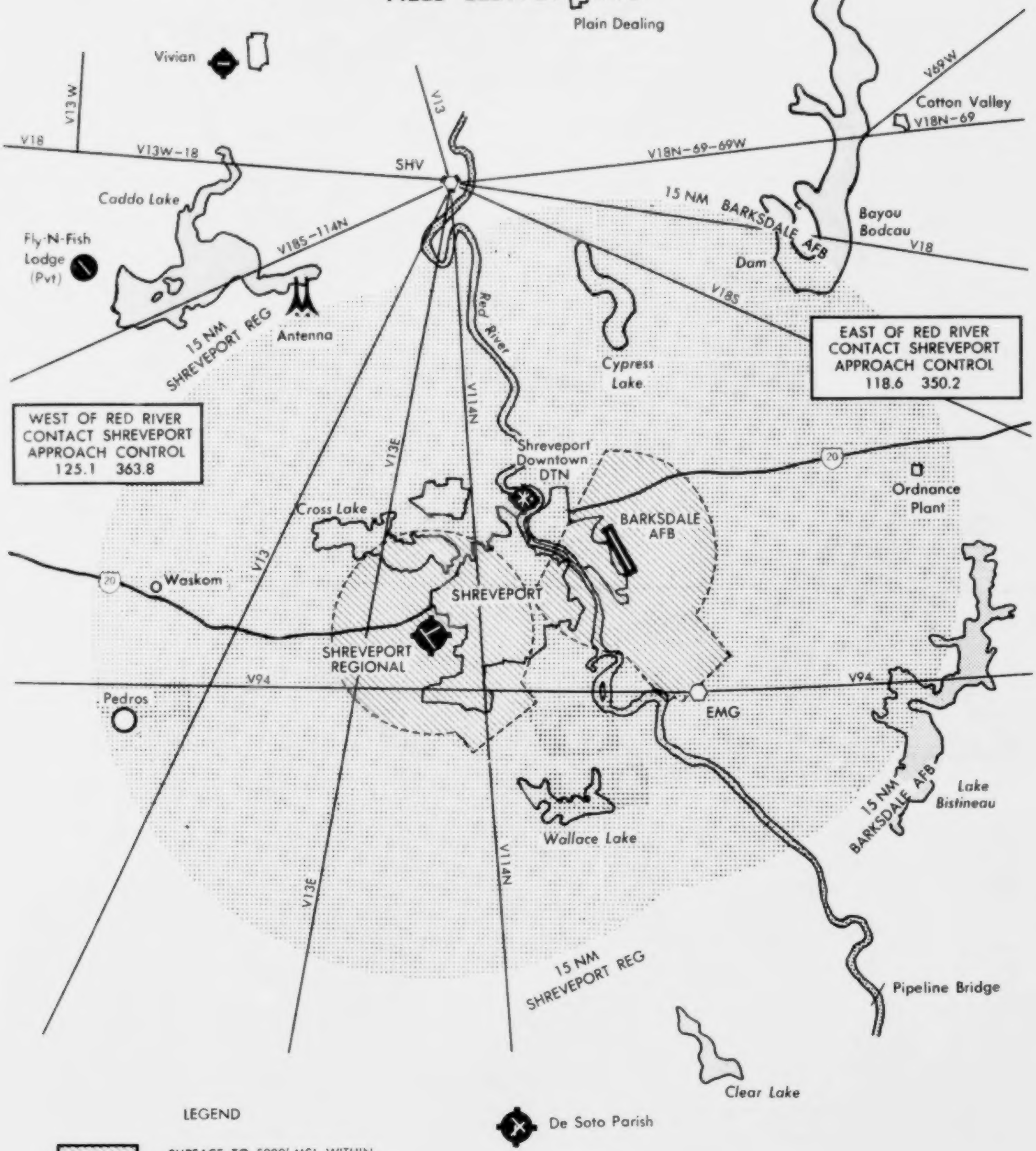
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SHREVEPORT, LOUISIANA, SHREVEPORT REGIONAL ARPT

FIELD ELEV. 258' MSL


Plain Dealing
Vivian
V13W
V18
V13W-18
V13
SHV
V18N-69-69W
V69W
Cotton Valley
V18N-69
Caddo Lake
15 NM BARKSDALE AFB
Bayou Bodcau
Dam
V18
Fly-N-Fish Lodge (Pvt)
V18S-114N
V18S
Antenna
15 NM SHREVEPORT REG
Red River
Cypress Lake
EAST OF RED RIVER CONTACT SHREVEPORT APPROACH CONTROL 118.6 350.2
WEST OF RED RIVER CONTACT SHREVEPORT APPROACH CONTROL 125.1 363.8
V114N
V13E
Shreveport Downtown DTN
20
Ordnance Plant
Cross Lake
BARKSDALE AFB
Waskom
20
V13
SHREVEPORT
SHREVEPORT REGIONAL
V94
V94
EMG
Pedros
15 NM BARKSDALE AFB
Lake Bistineau
Wallace Lake
V13E
V114N
15 NM SHREVEPORT REG
Pipeline Bridge
Clear Lake
De Soto Parish

LEGEND

▨ SURFACE TO 5000' MSL WITHIN AIRPORT CONTROL ZONE

░ 2000' MSL THROUGH 5000' MSL

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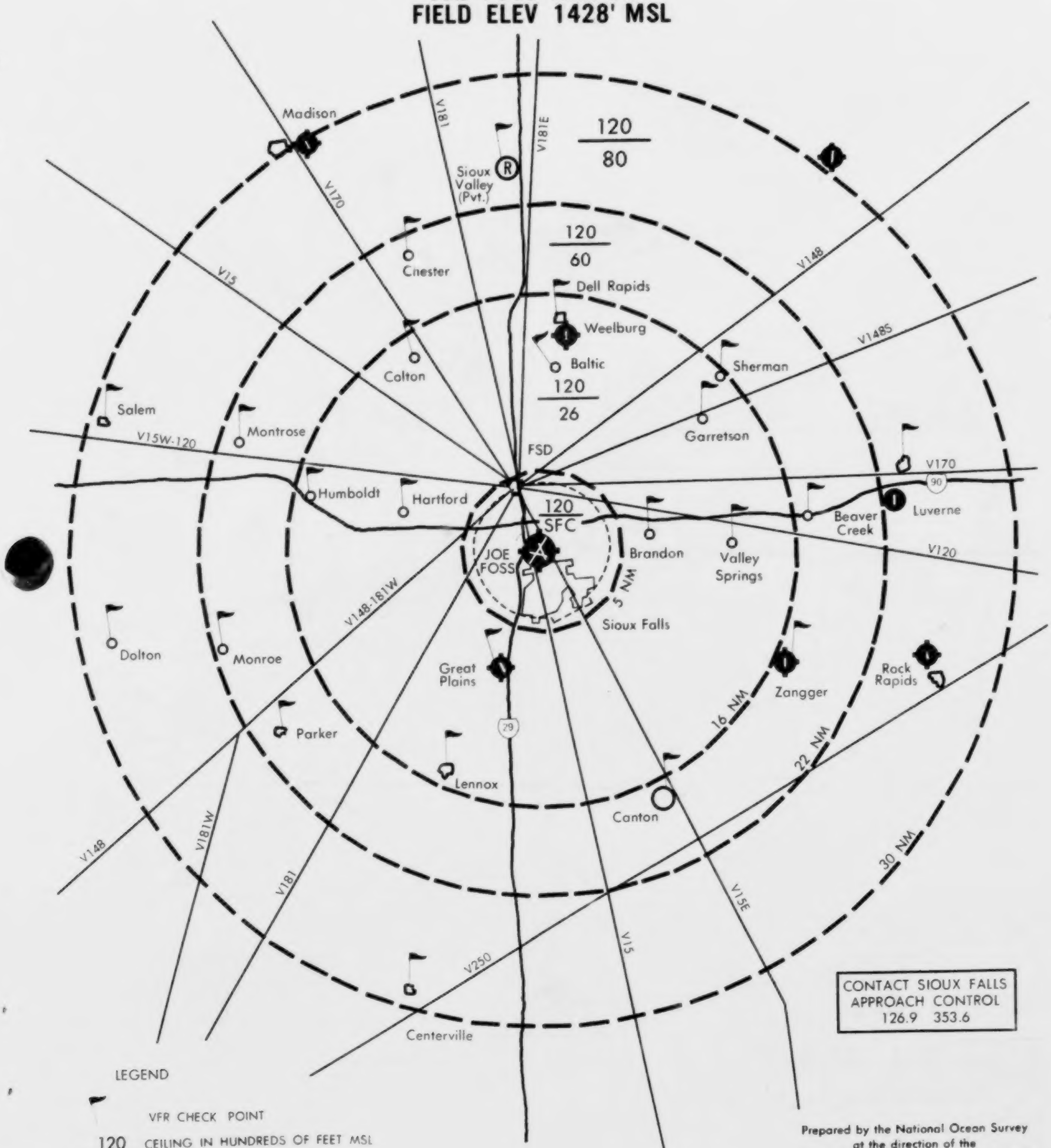
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SIOUX FALLS, SOUTH DAKOTA
JOE FOSS AIRPORT
FIELD ELEV 1428' MSL



Madison
V181
V181E
120/80
Sioux Valley (Pvt.)
R
V170
120/60
Chester
V15
Dell Rapids
Weelburg
V148
Baltic
Colton
Sherman
V148S
120/26
Salem
Montrose
Garretson
V15W-120
FSD
V170
90
Humboldt
Hartford
120/SFC
Beaver Creek
Luverne
JOE FOSS
Brandon
Valley Springs
V120
5 NM
Sioux Falls
V148-181W
Dolton
Monroe
Great Plains
Zangger
Rock Rapids
29
16 NM
22 NM
Parker
Lennox
Canton
V148
V181W
30 NM
V181
V15E
V15
V250
Centerville

CONTACT SIOUX FALLS
APPROACH CONTROL
126.9 353.6

LEGEND

VFR CHECK POINT

120 CEILING IN HUNDREDS OF FEET MSL

80 FLOOR IN HUNDREDS OF FEET MSL

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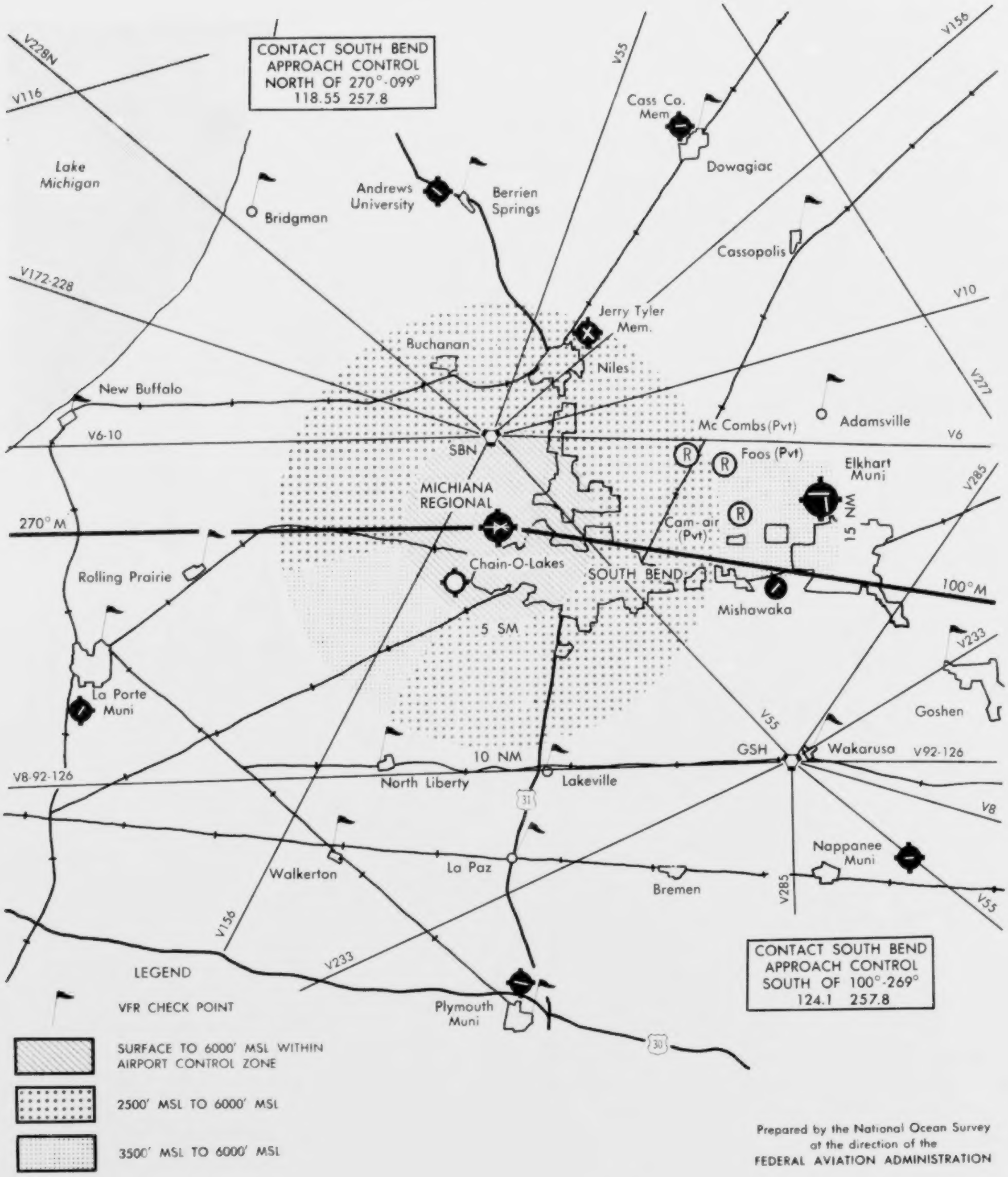
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SOUTH BEND, INDIANA
MICHIANA REGIONAL AIRPORT
FIELD ELEV 790′ MSL


CONTACT SOUTH BEND APPROACH CONTROL NORTH OF 270°-099° 118.55 257.8
CONTACT SOUTH BEND APPROACH CONTROL SOUTH OF 100°-269° 124.1 257.8
V228N
V116
V55
V156
Lake Michigan
Bridgman
Andrews University
Berrien Springs
Cass Co. Mem
Dowagiac
Cassopolis
V172-228
V10
V277
Jerry Tyler Mem.
Buchanan
Niles
New Buffalo
V6-10
SBN
Mc Combs (Pvt)
Adamsville
V6
Foos (Pvt)
Elkhart Muni
MICHIANA REGIONAL
270° M
Cam-air (Pvt)
15 NM
V285
Chain-O-Lakes
SOUTH BEND
100° M
Rolling Prairie
Mishawaka
5 SM
V233
La Porte Muni
Goshen
V55
GSH
Wakarusa
V92-126
10 NM
V8-92-126
North Liberty
Lakeville
31
V8
Nappanee Muni
Walkerton
La Paz
Bremen
V285
V55
V156
V233
Plymouth Muni
30
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
2500′ MSL TO 6000′ MSL
3500′ MSL TO 6000′ MSL

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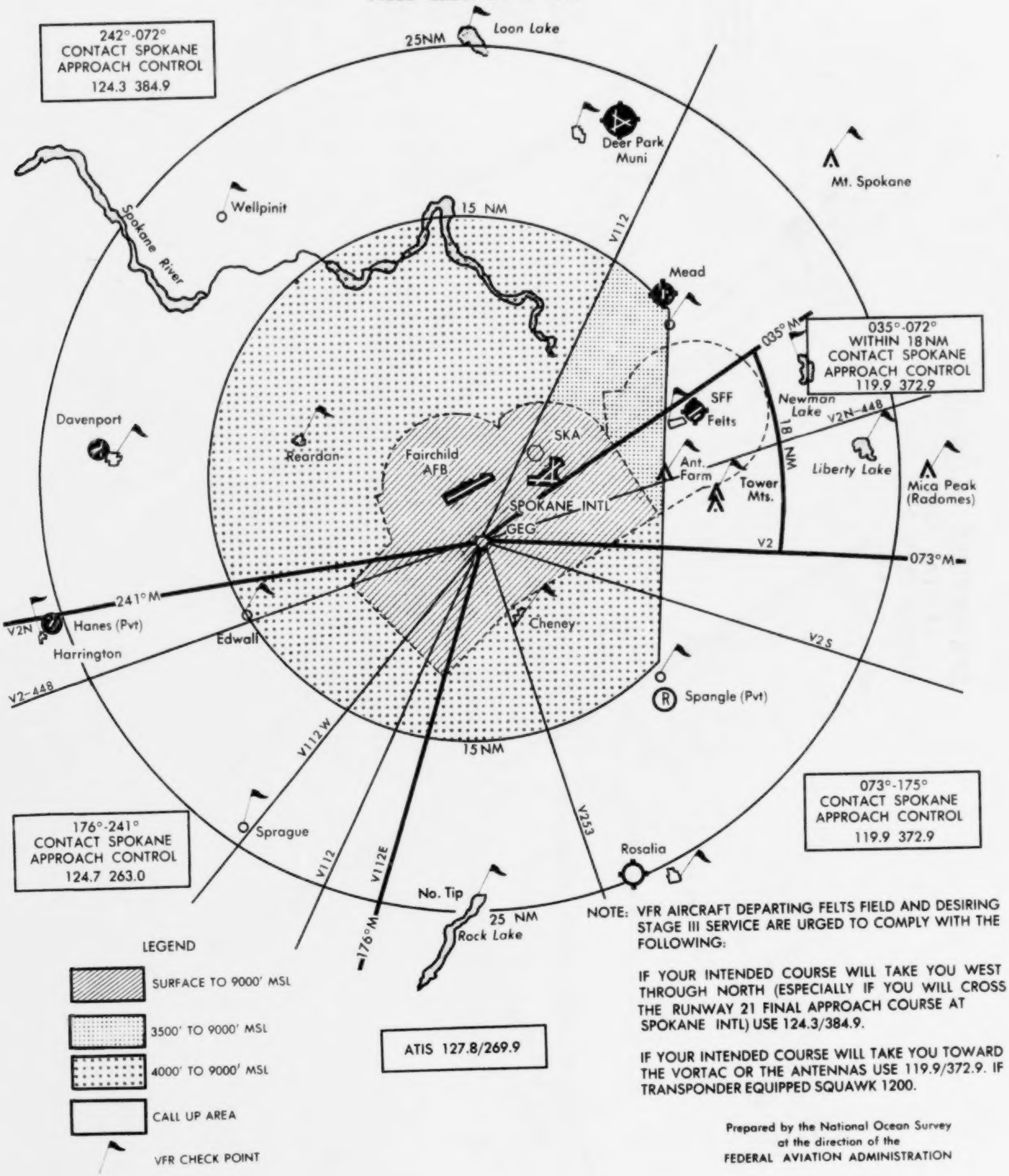
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SPOKANE, WASH., SPOKANE INTL AIRPORT
FIELD ELEV. 2372′ MSL



25NM
Loon Lake
Deer Park Muni
Mt. Spokane
Wellpinit
Spokane River
15 NM
V112
Mead
035°M
Newman Lake
SFF
Felts
18 NM
V2N-448
Davenport
Reardan
Fairchild AFB
SKA
Ant. Farm
Tower Mts.
Liberty Lake
Mica Peak (Radomes)
SPOKANE INTL
GEG
V2
073°M
241°M
V2N
Hanes (Pvt)
Harrington
Edwall
Cheney
V2S
V2-448
Spangle (Pvt)
15NM
V112W
V253
Sprague
V112
V112E
Rosalia
No. Tip
25 NM
Rock Lake
176°M
LEGEND
SURFACE TO 9000′ MSL
3500′ TO 9000′ MSL
4000′ TO 9000′ MSL
CALL UP AREA
VFR CHECK POINT

242°-072°
CONTACT SPOKANE
APPROACH CONTROL
124.3 384.9

035°-072°
WITHIN 18 NM
CONTACT SPOKANE
APPROACH CONTROL
119.9 372.9

073°-175°
CONTACT SPOKANE
APPROACH CONTROL
119.9 372.9

176°-241°
CONTACT SPOKANE
APPROACH CONTROL
124.7 263.0

ATIS 127.8/269.9

NOTE: VFR AIRCRAFT DEPARTING FELTS FIELD AND DESIRING STAGE III SERVICE ARE URGED TO COMPLY WITH THE FOLLOWING:

IF YOUR INTENDED COURSE WILL TAKE YOU WEST THROUGH NORTH (ESPECIALLY IF YOU WILL CROSS THE RUNWAY 21 FINAL APPROACH COURSE AT SPOKANE INTL) USE 124.3/384.9.

IF YOUR INTENDED COURSE WILL TAKE YOU TOWARD THE VORTAC OR THE ANTENNAS USE 119.9/372.9. IF TRANSPONDER EQUIPPED SQUAWK 1200.

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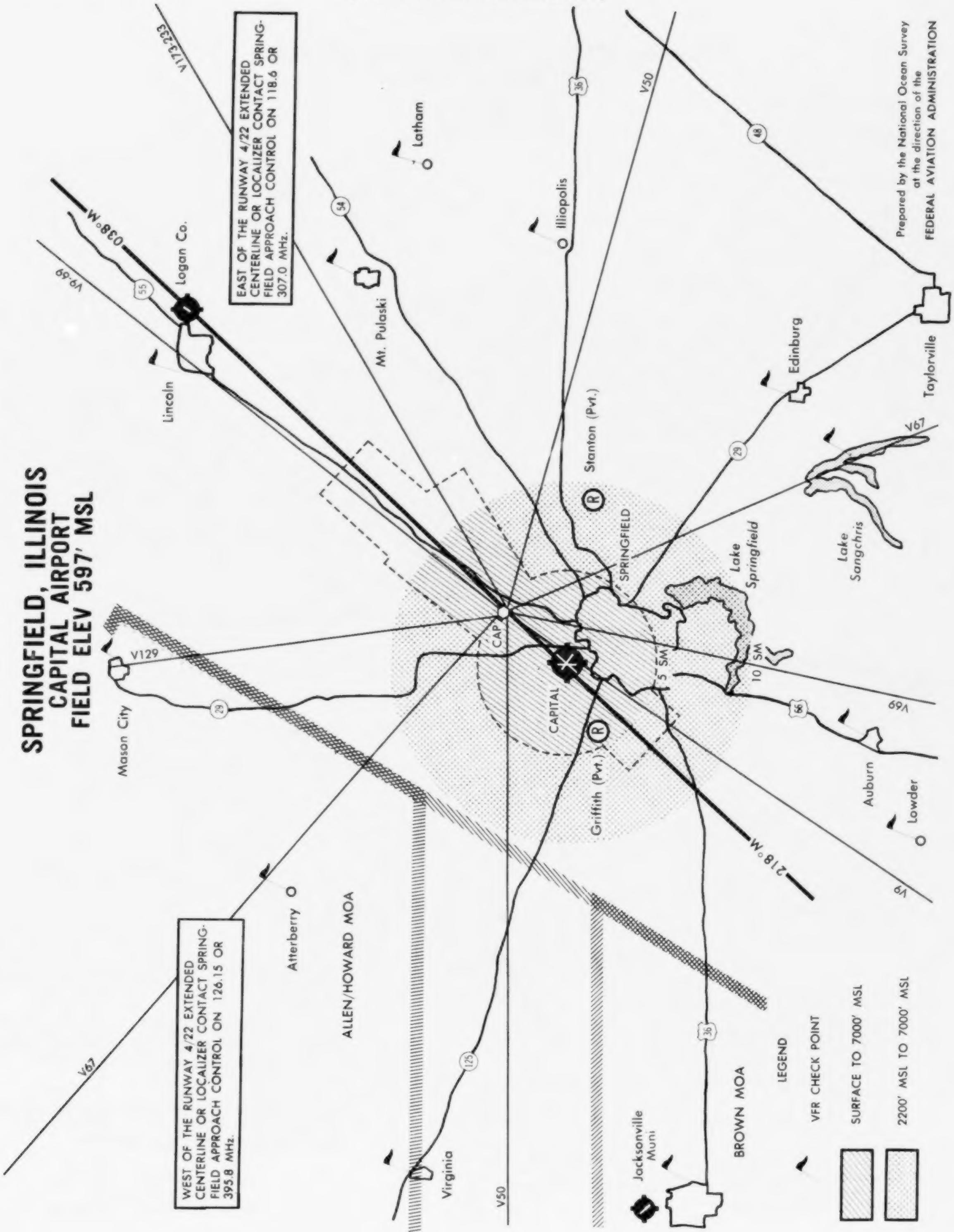
13 JUL 1978

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

SPRINGFIELD, ILLINOIS
CAPITAL AIRPORT
FIELD ELEV 597' MSL



EAST OF THE RUNWAY 4/22 EXTENDED CENTERLINE OR LOCALIZER CONTACT SPRINGFIELD APPROACH CONTROL ON 118.6 OR 307.0 MHz.

WEST OF THE RUNWAY 4/22 EXTENDED CENTERLINE OR LOCALIZER CONTACT SPRINGFIELD APPROACH CONTROL ON 126.15 OR 395.8 MHz.

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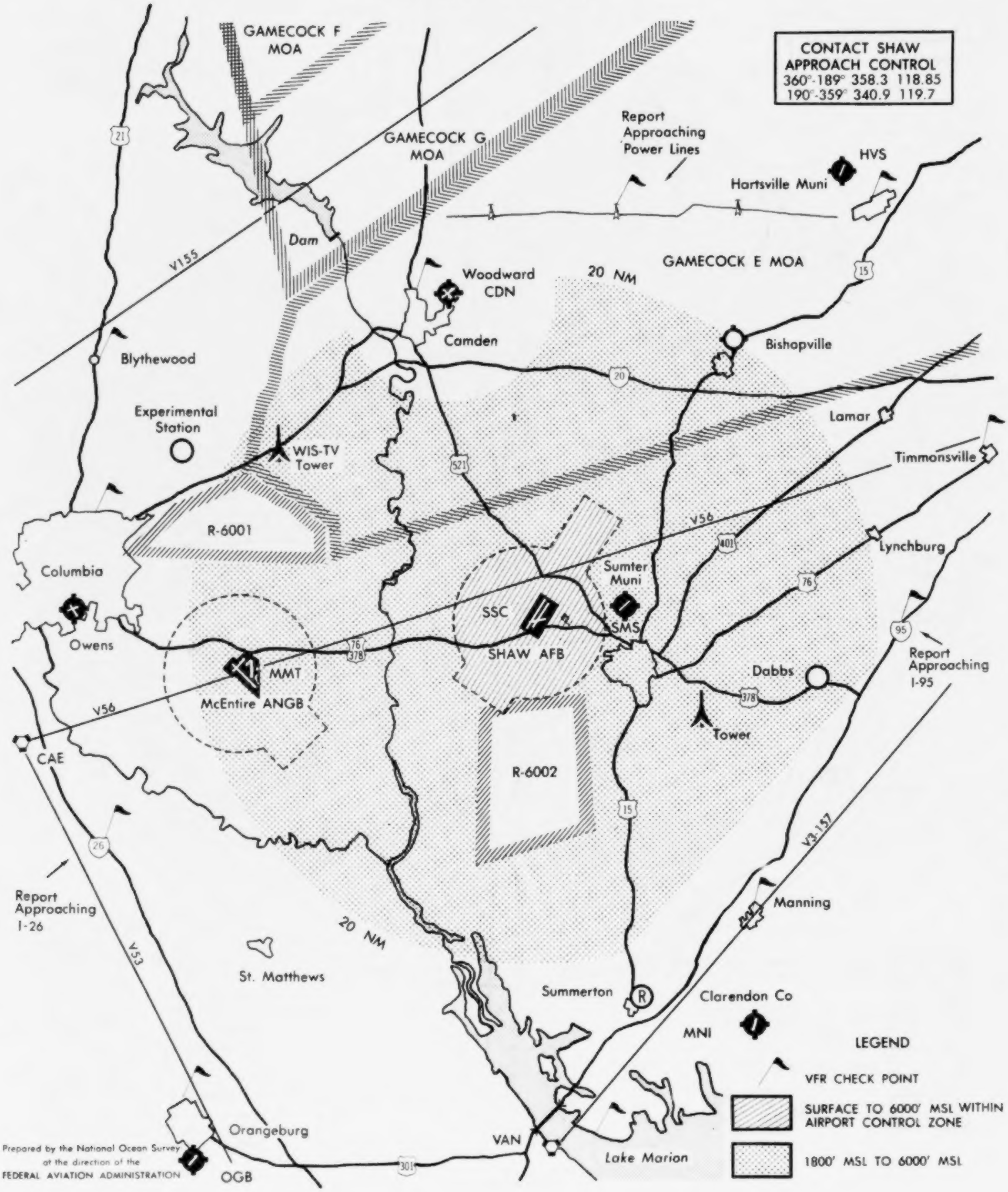
V173-233
V9-69
038°M
Logan Co.
55
Lincoln
Mt. Pulaski
54
Latham
Illiopolis
36
V50
48
Stanton (Pvt.)
Edinburg
Taylorville
29
V67
Lake Sangchris
Lake Springfield
SPRINGFIELD
CAP
CAPITAL
5 SM
10 SM
Griffith (Pvt.)
66
V69
Auburn
Lowder
V9
218°M
Mason City
V129
29
Atterberry
ALLEN/HOWARD MOA
V67
125
Virginia
V50
36
Jacksonville Muni
BROWN MOA
LEGEND
VFR CHECK POINT
SURFACE TO 7000' MSL
2200' MSL TO 7000' MSL

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SOUTH CAROLINA
SHAW AFB
FIELD ELEV 241′ MSL


GAMECOCK F MOA
GAMECOCK G MOA
GAMECOCK E MOA
CONTACT SHAW APPROACH CONTROL
360°-189° 358.3 118.85
190°-359° 340.9 119.7
Report Approaching Power Lines
HVS
Hartsville Muni
21
Dam
V155
Woodward CDN
20 NM
15
Camden
Bishopville
Blythewood
20
Experimental Station
WIS-TV Tower
Lamar
521
Timmonsville
R-6001
V56
401
Lynchburg
Columbia
Sumter Muni
SSC
SMS
76
Owens
76
378
SHAW AFB
95
Report Approaching I-95
MMT
Dabbs
McEntire ANGB
378
V56
Tower
CAE
R-6002
15
V3-157
26
Report Approaching I-26
Manning
20 NM
V53
St. Matthews
Summerton
R
Clarendon Co
MNI
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
1800′ MSL TO 6000′ MSL
Orangeburg
VAN
301
Lake Marion
OGB

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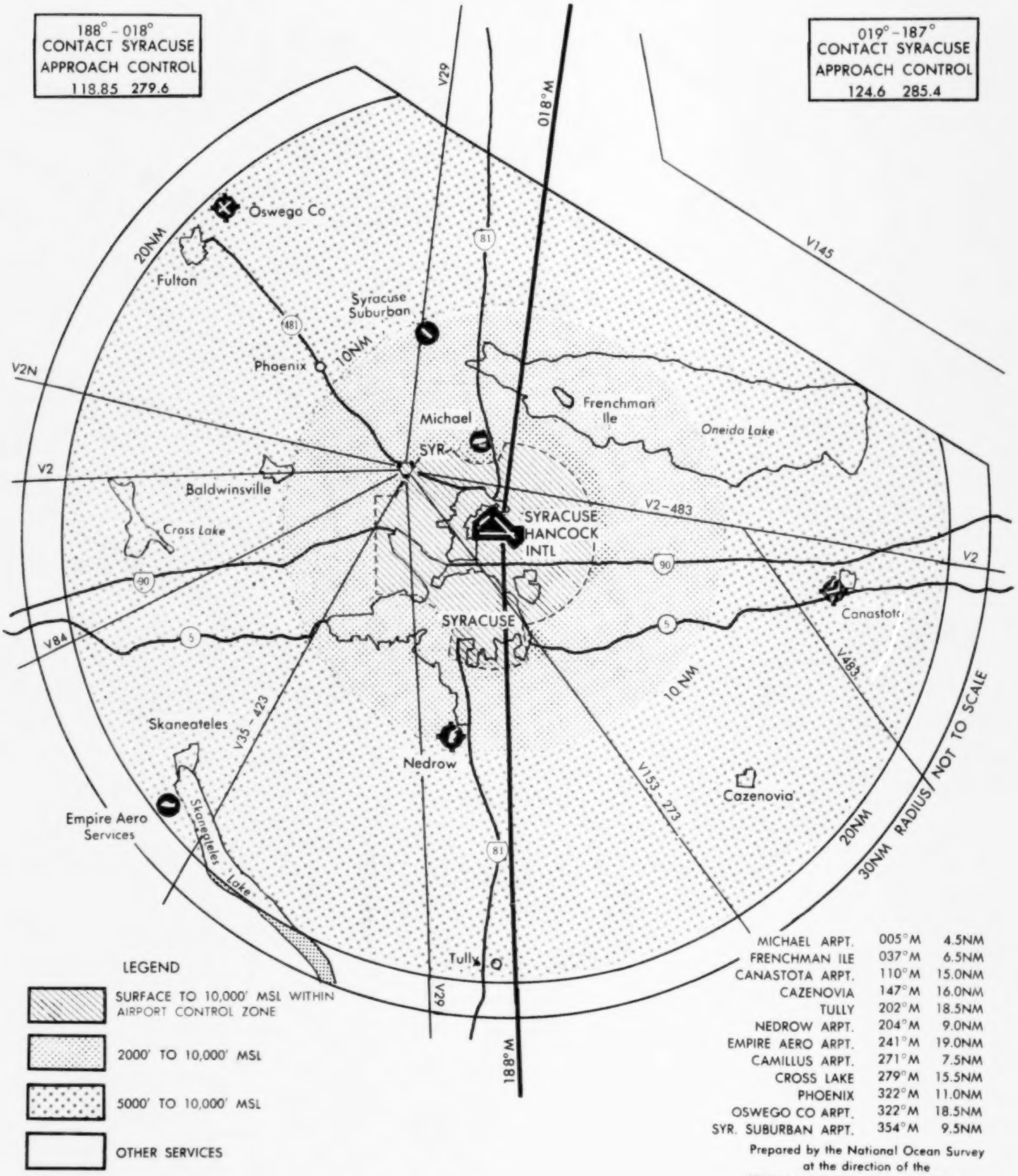
2 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SYRACUSE, N.Y., SYRACUSE HANCOCK INTL ARPT.

FIELD ELEV. 421′ MSL


188° – 018°
CONTACT SYRACUSE
APPROACH CONTROL
118.85 279.6
019° – 187°
CONTACT SYRACUSE
APPROACH CONTROL
124.6 285.4
V29
018°M
V145
Oswego Co
20NM
Fulton
81
Syracuse Suburban
481
10NM
Phoenix
V2N
Frenchman Ile
Oneida Lake
Michael
SYR
V2
Baldwinsville
V2–483
SYRACUSE HANCOCK INTL
Cross Lake
90
V2
Canastota
V84
5
SYRACUSE
V483
10 NM
Skaneateles
V35–423
Nedrow
V153–273
Cazenovia
Empire Aero Services
Skaneateles Lake
20NM
30NM RADIUS/NOT TO SCALE
Tully
188°M
LEGEND
▨ SURFACE TO 10,000′ MSL WITHIN AIRPORT CONTROL ZONE
2000′ TO 10,000′ MSL
5000′ TO 10,000′ MSL
☐ OTHER SERVICES

MICHAEL ARPT.	005°M	4.5NM
FRENCHMAN ILE	037°M	6.5NM
CANASTOTA ARPT.	110°M	15.0NM
CAZENOVIA	147°M	16.0NM
TULLY	202°M	18.5NM
NEDROW ARPT.	204°M	9.0NM
EMPIRE AERO ARPT.	241°M	19.0NM
CAMILLUS ARPT.	271°M	7.5NM
CROSS LAKE	279°M	15.5NM
PHOENIX	322°M	11.0NM
OSWEGO CO ARPT.	322°M	18.5NM
SYR. SUBURBAN ARPT.	354°M	9.5NM

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FEDERAL AVIATION ADMINISTRATION

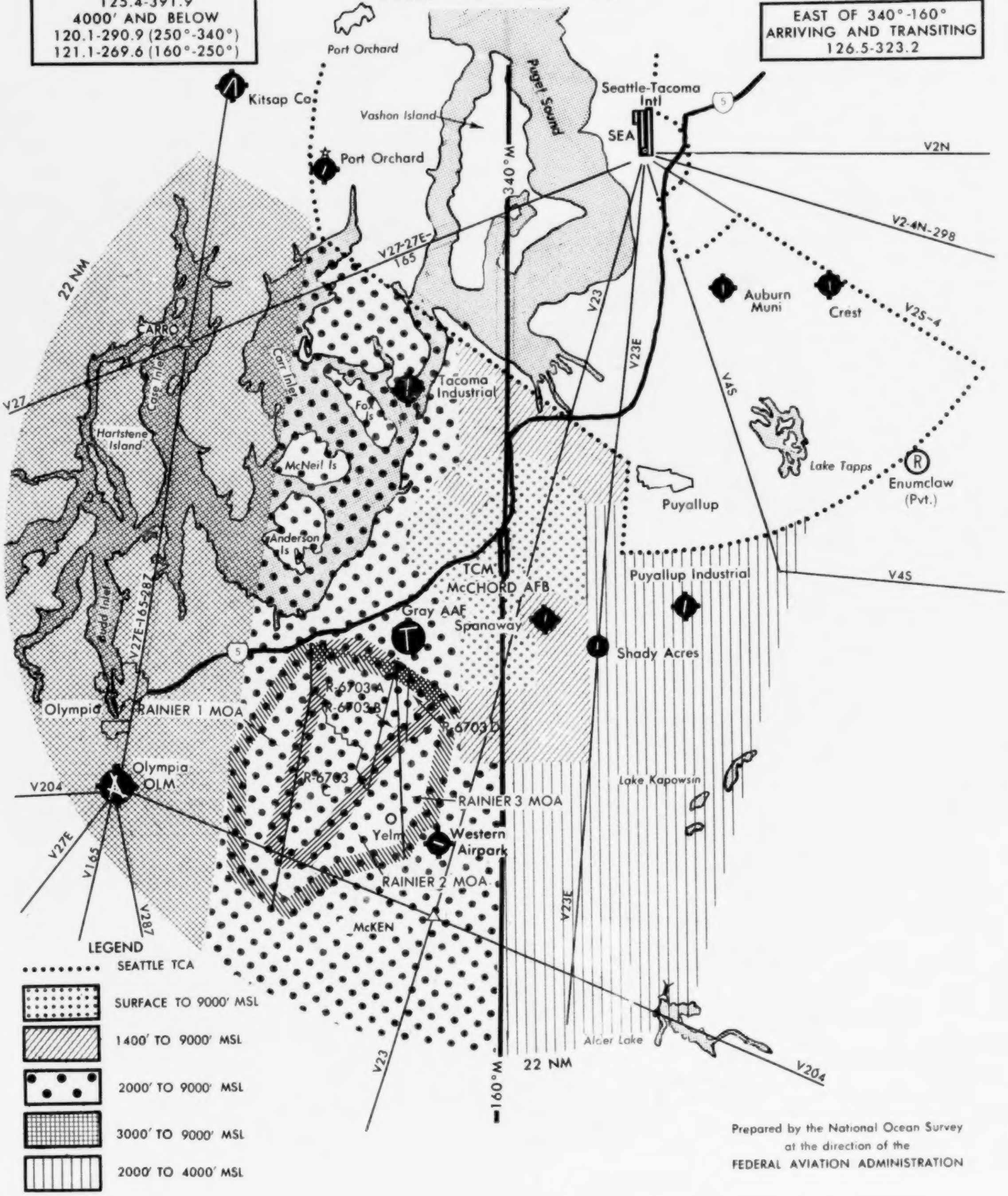
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TACOMA, WASHINGTON
Mc CHORD AFB
FIELD ELEV 322' MSL

WEST OF 160°-340°
ARRIVING AND TRANSITING
ABOVE 4000'
125.4-391.9
4000' AND BELOW
120.1-290.9 (250°-340°)
121.1-269.6 (160°-250°)

EAST OF 340°-160°
ARRIVING AND TRANSITING
126.5-323.2


Port Orchard
Kitsap Co
Vashon Island
Puget Sound
Seattle-Tacoma Intl
SEA
5
V2N
Port Orchard
340° M
V2-4N-298
V27-27E-165
22 NM
Auburn Muni
Crest
V25-4
V23
V23E
CARRO
Case Inlet
Carr Inlet
Tacoma Industrial
Fox Is
V4S
V27
Hartstene Island
McNeil Is
Lake Tapps
Enumclaw (Pvt.)
Puyallup
Anderson Is
Puyallup Industrial
V4S
TCM
McCHORD AFB
Gray AAF
Spanaway
Budd Inlet
V27E-165-287
5
Shady Acres
R-6703 A
R-6703 B
R-6703 D
Olympia
RAINIER 1 MOA
Olympia OLM
R-6703
V204
RAINIER 3 MOA
Lake Kapowsin
Yelm
Western Airpark
V27E
V165
RAINIER 2 MOA
V287
V23E
McKEN
LEGEND
SEATTLE TCA
SURFACE TO 9000' MSL
1400' TO 9000' MSL
2000' TO 9000' MSL
3000' TO 9000' MSL
2000' TO 4000' MSL
Alder Lake
V23
160° M
22 NM
V204

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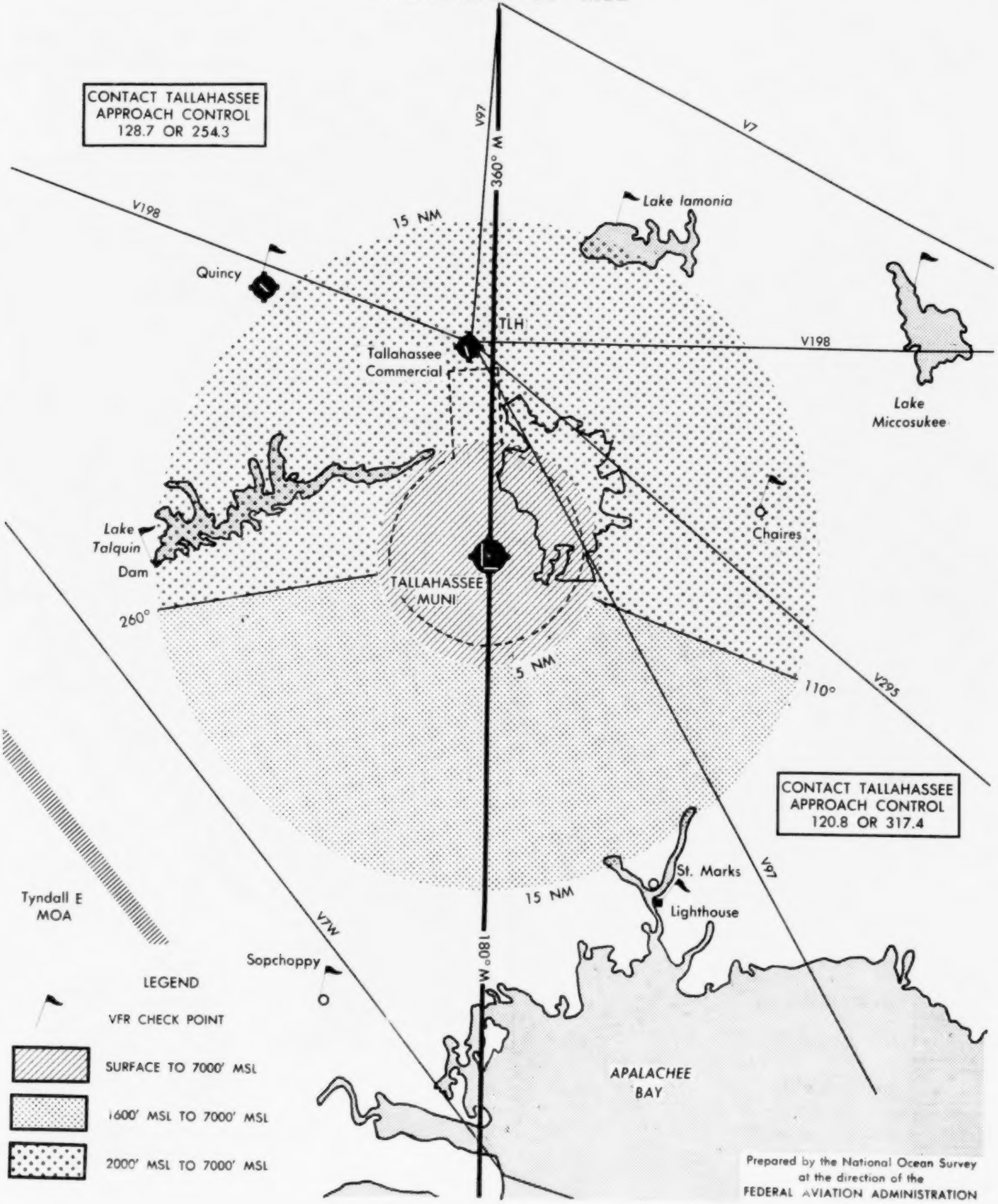
24 MAY 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TALLAHASSEE, FLORIDA
TALLAHASSEE MUNICIPAL AIRPORT
FIELD ELEV 81′ MSL

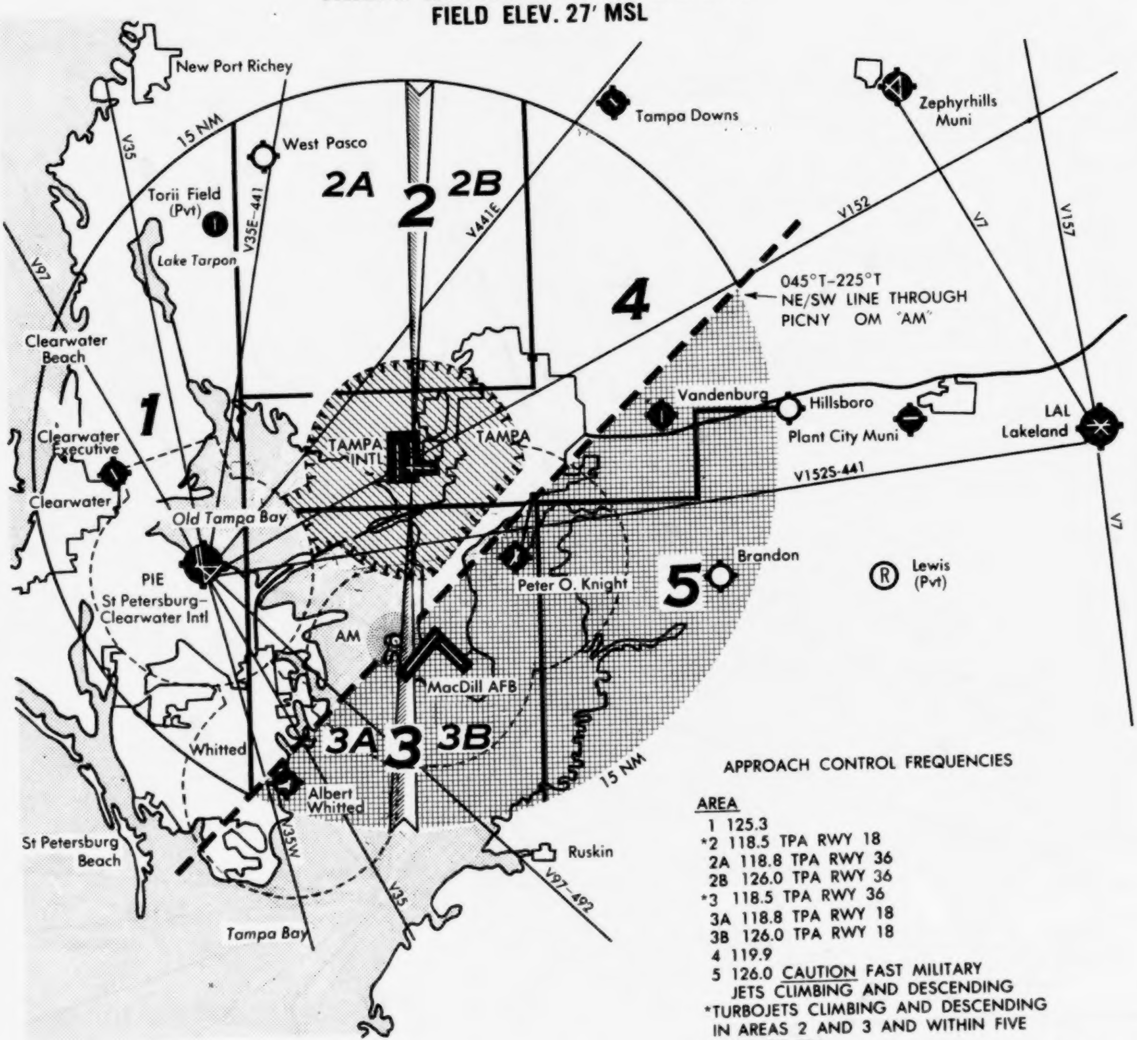

CONTACT TALLAHASSEE
APPROACH CONTROL
128.7 OR 254.3
V97
360° M
V7
V198
15 NM
Lake Iamonia
Quincy
TLH
Tallahassee
Commercial
V198
Lake
Miccosukee
Chaires
Lake
Talquin
Dam
260°
TALLAHASSEE
MUNI
5 NM
110°
V295
CONTACT TALLAHASSEE
APPROACH CONTROL
120.8 OR 317.4
St. Marks
V97
Lighthouse
15 NM
Tyndall E
MOA
V7W
180° M
Sopchoppy
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
1600′ MSL TO 7000′ MSL
2000′ MSL TO 7000′ MSL
APALACHEE
BAY

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA
TAMPA INTERNATIONAL AIRPORT
FIELD ELEV. 27′ MSL


New Port Richey
15 NM
West Pasco
V35
Torii Field (Pvt)
V35E-441
Lake Tarpon
V97
2A
2
2B
V441E
Tampa Downs
Zephyrhills Muni
V152
V7
V157
4
045°T-225°T
NE/SW LINE THROUGH
PICNY OM "AM"
Clearwater Beach
1
Clearwater Executive
Clearwater
Old Tampa Bay
TAMPA INTL
TAMPA
Vandenburg
Hillsboro
Plant City Muni
LAL
Lakeland
V152S-441
PIE
St Petersburg-Clearwater Intl
Peter O. Knight
5
Brandon
Lewis (Pvt)
AM
MacDill AFB
Whitted
3A
3
3B
15 NM
Albert Whitted
St Petersburg Beach
V35W
V35
Ruskin
V97-492
Tampa Bay

APPROACH CONTROL FREQUENCIES

AREA
1 125.3
*2 118.5 TPA RWY 18
2A 118.8 TPA RWY 36
2B 126.0 TPA RWY 36
*3 118.5 TPA RWY 36
3A 118.8 TPA RWY 18
3B 126.0 TPA RWY 18
4 119.9
5 126.0 CAUTION FAST MILITARY JETS CLIMBING AND DESCENDING

*TURBOJETS CLIMBING AND DESCENDING IN AREAS 2 AND 3 AND WITHIN FIVE MILES OF TPA

NOTE–TPA ATIS 126.45 FOR RUNWAY IN USE

CHANGE TRANSPONDER TO CODE 1200 AFTER LEAVING APPROACH CONTROL FREQUENCY

VFR REPORTING POINTS	
RUSKIN	SSE – 16 NM
PLANT CITY	ENE – 21 NM
TAMPA DOWNS AIRPORT	NE – 17 NM
NEW PORT RICHEY	NW – 19 NM
CLEARWATER BEACH	W – 17 NM
PETERSBURG BEACH	SW – 18 NM

LEGEND

▨	SURFACE TO 6000′ MSL WITHIN CONTROL ZONE
▦	2100′ MSL TO 6000′ MSL
☐	1600′ MSL TO 6000′ MSL

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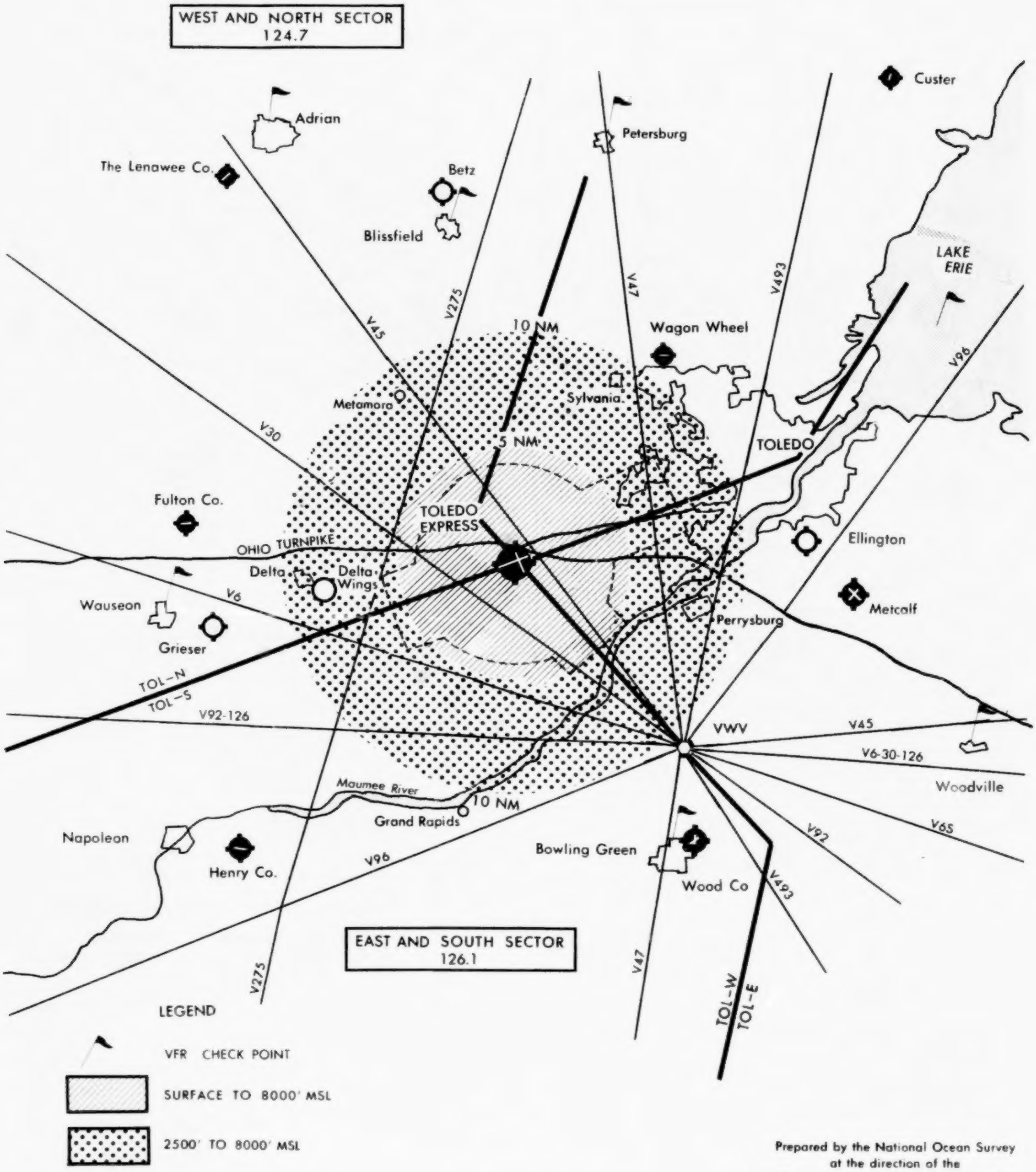
18 MAY 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TOLEDO, OHIO, TOLEDO EXPRESS ARPT
FIELD ELEV. 684′ MSL

ATIS 118.75


WEST AND NORTH SECTOR
124.7
Custer
Adrian
Petersburg
The Lenawee Co.
Betz
Blissfield
LAKE ERIE
V45
V275
V47
V493
V96
10 NM
Wagon Wheel
Metamora
Sylvania
V30
5 NM
TOLEDO
Fulton Co.
TOLEDO EXPRESS
Ellington
OHIO TURNPIKE
Delta
Delta Wings
Metcalf
V6
Wauseon
Grieser
Perrysburg
TOL-N
TOL-S
V92-126
VWV
V45
V6-30-126
Woodville
Maumee River
10 NM
Grand Rapids
V65
V92
Napoleon
Bowling Green
Henry Co.
V96
Wood Co
V493
EAST AND SOUTH SECTOR
126.1
V275
V47
TOL-W
TOL-E
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL
2500′ TO 8000′ MSL

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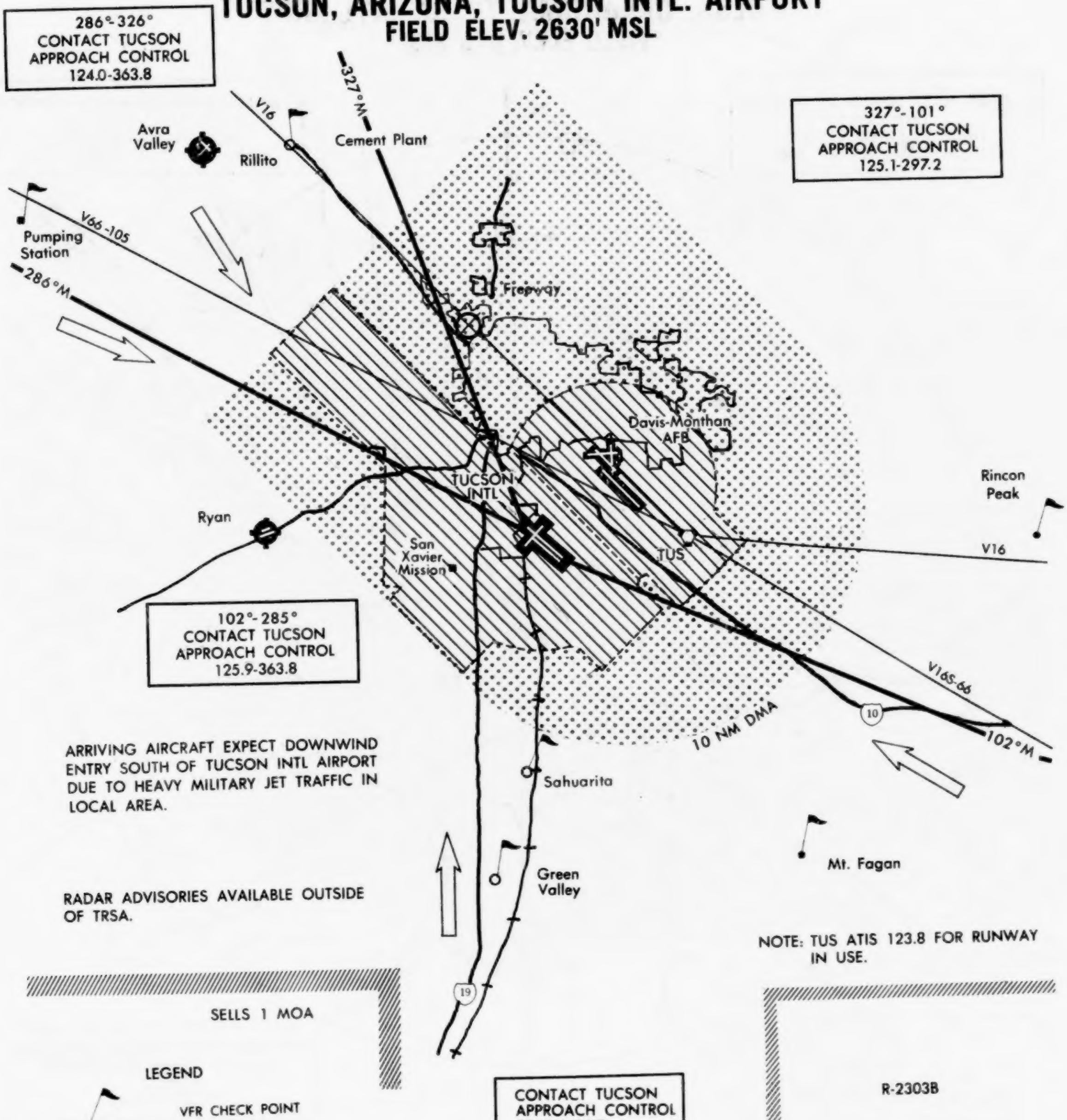
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TUCSON, ARIZONA, TUCSON INTL. AIRPORT
FIELD ELEV. 2630' MSL


327°M
V16
Avra Valley
Rillito
Cement Plant
Pumping Station
V66-105
286°M
Freeway
Davis-Monthan AFB
TUCSON INTL
Rincon Peak
Ryan
San Xavier Mission
TUS
V16
V16S-66
10
10 NM DMA
102°M
Sahuarita
Green Valley
Mt. Fagan
19
SELLS 1 MOA
R-2303B

286°-326°
CONTACT TUCSON
APPROACH CONTROL
124.0-363.8

327°-101°
CONTACT TUCSON
APPROACH CONTROL
125.1-297.2

102°-285°
CONTACT TUCSON
APPROACH CONTROL
125.9-363.8

ARRIVING AIRCRAFT EXPECT DOWNWIND ENTRY SOUTH OF TUCSON INTL AIRPORT DUE TO HEAVY MILITARY JET TRAFFIC IN LOCAL AREA.

RADAR ADVISORIES AVAILABLE OUTSIDE OF TRSA.

NOTE: TUS ATIS 123.8 FOR RUNWAY IN USE.

CONTACT TUCSON
APPROACH CONTROL
30 NM OUT.

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 7,000' MSL WITHIN AIRPORT CONTROL ZONE
░	4000' MSL TO 7,000' MSL
⇦	SUGGESTED VFR ROUTES

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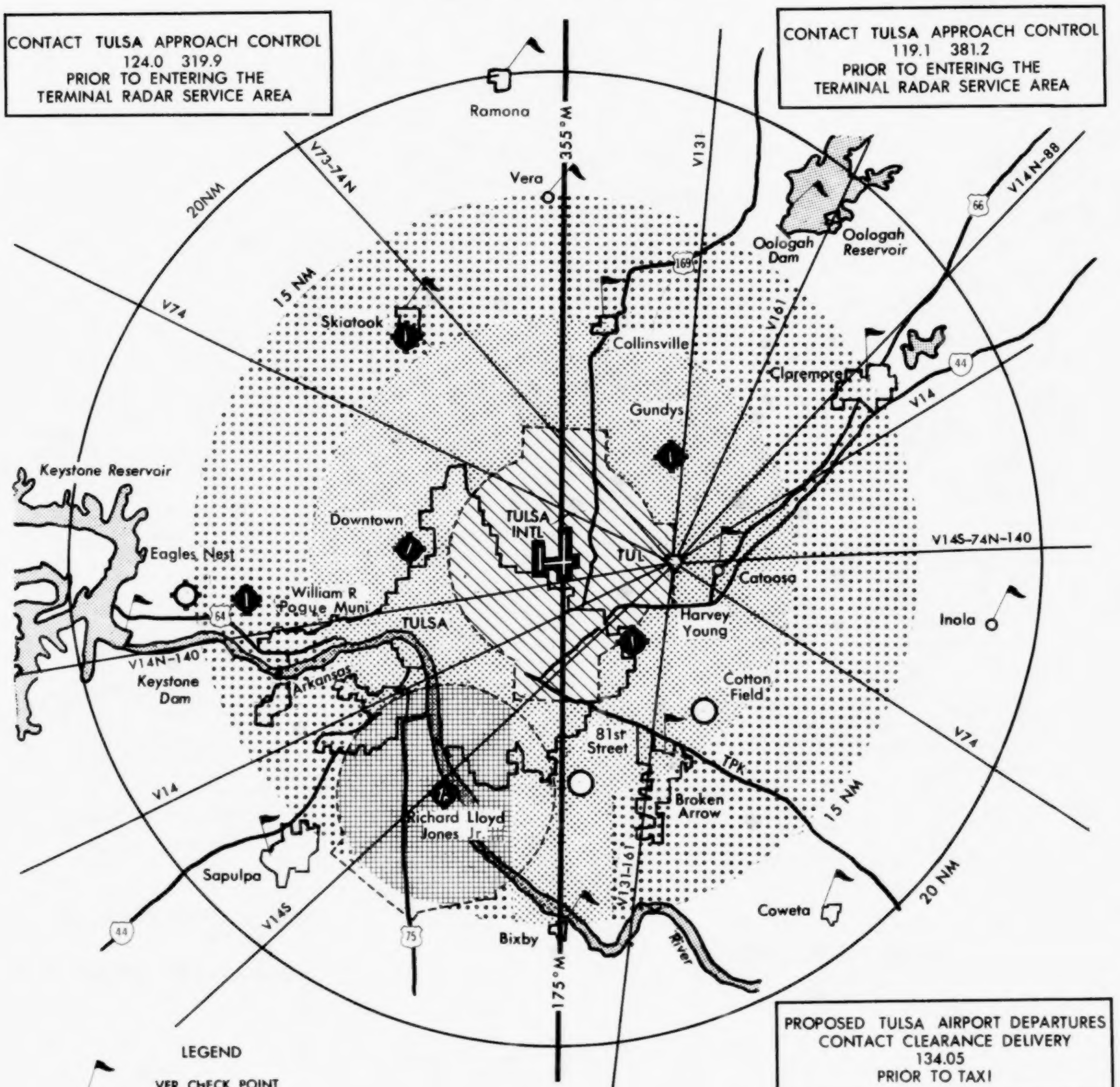
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TULSA, OKLAHOMA, TULSA INTL ARPT
FIELD ELEV. 676' MSL

CONTACT TULSA APPROACH CONTROL
124.0 319.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT TULSA APPROACH CONTROL
119.1 381.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA


Ramona
355°M
Vera
V131
V73-74N
20NM
15 NM
V74
Skiatook
Collinsville
169
Oologah Dam
Oologah Reservoir
66
V14N-88
V161
Claremore
44
V14
Gundys
Keystone Reservoir
Downtown
TULSA INTL
TUL
V14S-74N-140
Eagles Nest
William R Pogue Muni
64
TULSA
Catoosa
Harvey Young
Inola
V14N-140
Keystone Dam
Arkansas
Cotton Field
81st Street
TPK
V74
15 NM
Broken Arrow
V14
Richard Lloyd Jones Jr
V131-161
Sapulpa
20 NM
Coweta
44
V14S
75
Bixby
River
175°M

PROPOSED TULSA AIRPORT DEPARTURES
CONTACT CLEARANCE DELIVERY
134.05
PRIOR TO TAXI

LEGEND

VFR CHECK POINT

▨ SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE

░ 2500' MSL TO 8000' MSL

⁘ 3000' MSL TO 8000' MSL

▒ 3500' MSL TO 8000' MSL

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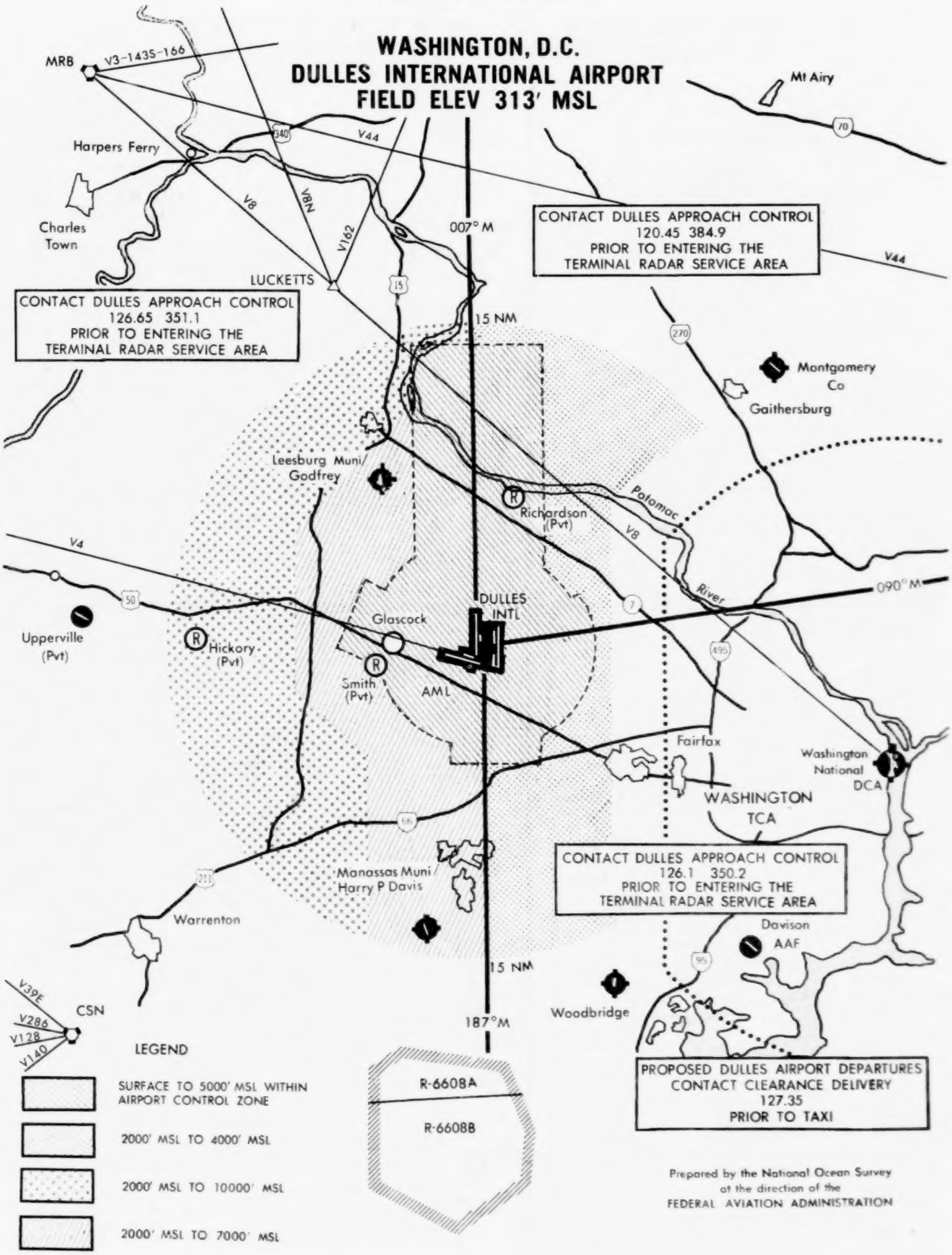
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON, D.C.
DULLES INTERNATIONAL AIRPORT
FIELD ELEV 313′ MSL


MRB
V3-1435-166
Mt Airy
70
340
V44
Harpers Ferry
Charles Town
V8
V8N
V162
LUCKETTS
15
007° M
V44
15 NM
270
Montgomery Co
Gaithersburg
Leesburg Muni/ Godfrey
Richardson (Pvt)
Potomac
V8
V4
River
090° M
50
7
DULLES INTL
Upperville (Pvt)
Hickory (Pvt)
Glascock
Smith (Pvt)
AML
495
Fairfax
Washington National
DCA
WASHINGTON TCA
66
211
Manassas Muni/ Harry P Davis
Warrenton
Davison AAF
95
15 NM
V39E
V286
V128
V140
CSN
187° M
Woodbridge
R-6608A
R-6608B
LEGEND
SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
2000′ MSL TO 4000′ MSL
2000′ MSL TO 10000′ MSL
2000′ MSL TO 7000′ MSL

CONTACT DULLES APPROACH CONTROL
126.65 351.1
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT DULLES APPROACH CONTROL
120.45 384.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT DULLES APPROACH CONTROL
126.1 350.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

PROPOSED DULLES AIRPORT DEPARTURES
CONTACT CLEARANCE DELIVERY
127.35
PRIOR TO TAXI

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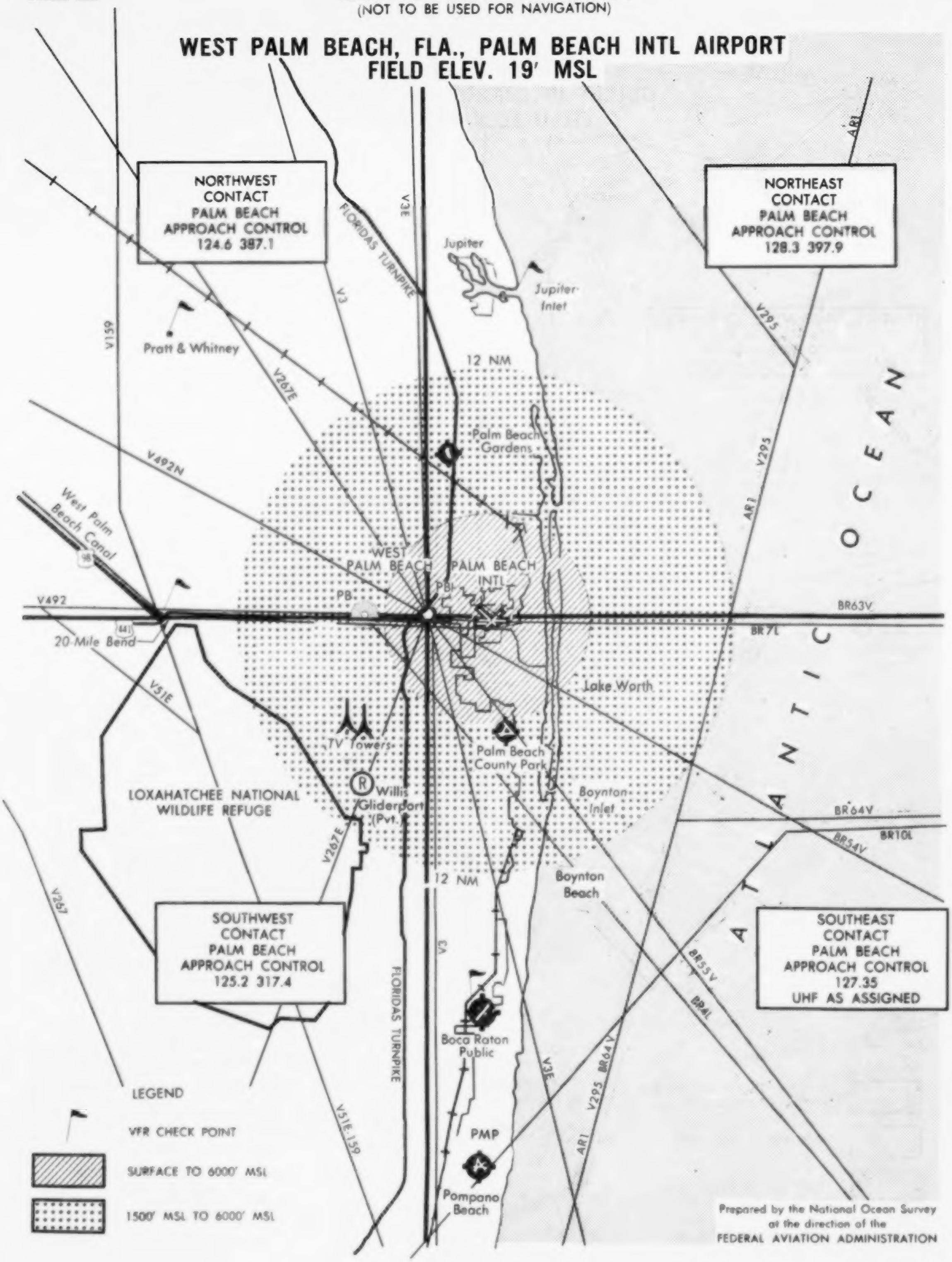
TRSA-122

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WEST PALM BEACH, FLA., PALM BEACH INTL AIRPORT
FIELD ELEV. 19′ MSL


NORTHWEST CONTACT PALM BEACH APPROACH CONTROL 124.6 387.1
NORTHEAST CONTACT PALM BEACH APPROACH CONTROL 128.3 397.9
SOUTHWEST CONTACT PALM BEACH APPROACH CONTROL 125.2 317.4
SOUTHEAST CONTACT PALM BEACH APPROACH CONTROL 127.35 UHF AS ASSIGNED
FLORIDAS TURNPIKE
V3E
V3
V159
V267E
V267
V492N
V492
V51E
V51E-159
V295
AR1
BR63V
BR7L
BR64V
BR10L
BR54V
BR55V
BR4L
Jupiter
Jupiter Inlet
Pratt & Whitney
12 NM
Palm Beach Gardens
West Palm Beach Canal
98
441
20 Mile Bend
WEST PALM BEACH
PALM BEACH INTL
PBI
PB
Lake Worth
TV Towers
Palm Beach County Park
Willis Gliderport (Pvt.)
R
LOXAHATCHEE NATIONAL WILDLIFE REFUGE
Boynton Inlet
Boynton Beach
Boca Raton Public
PMP
Pompano Beach
ATLANTIC OCEAN
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
1500′ MSL TO 6000′ MSL

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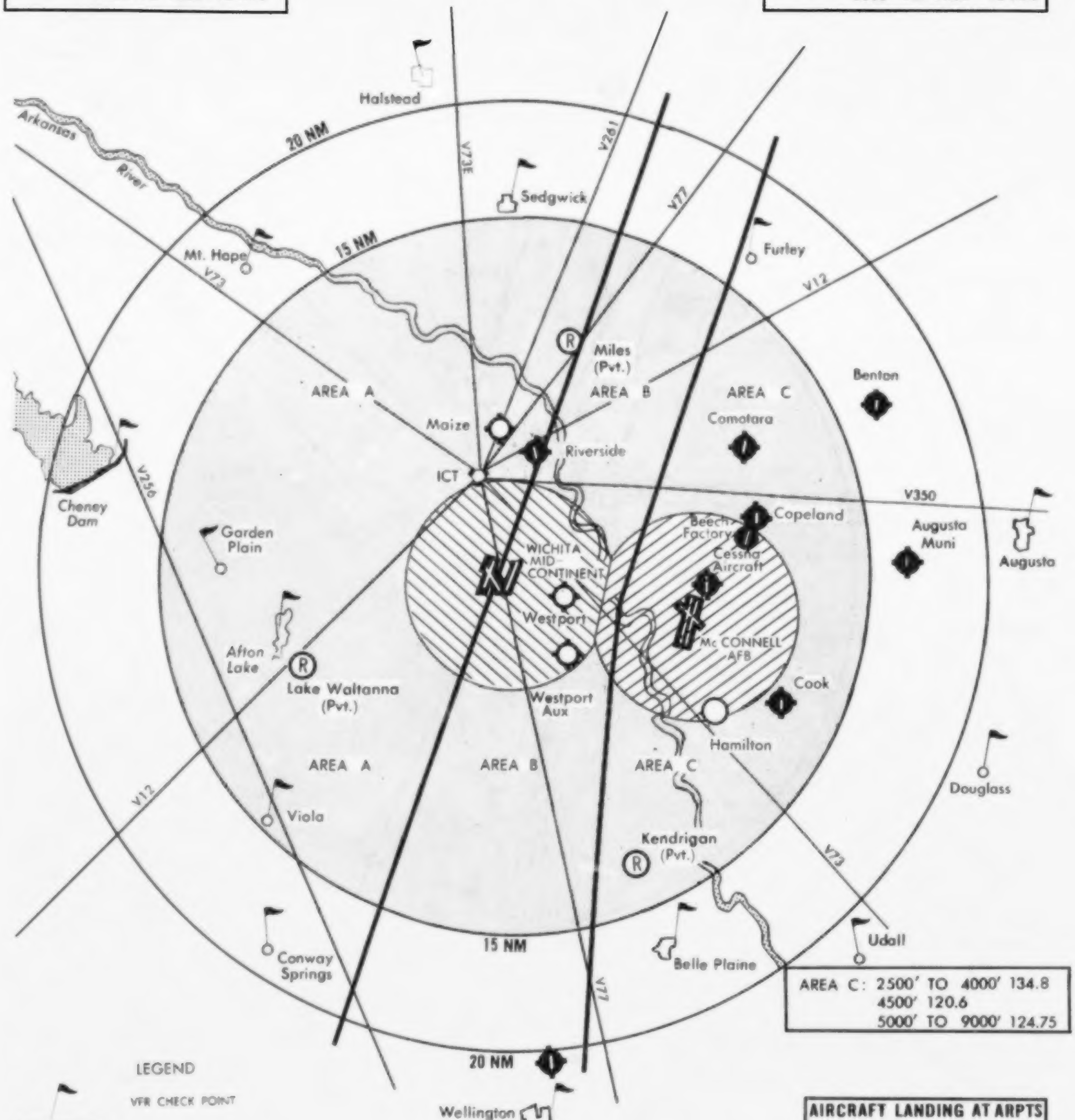
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS, WICHITA MID-CONTINENT AIRPORT
FIELD ELEV. 1332′ MSL

AREA A: 2500′ TO 4500′ 126.7
5000′ TO 9000′ 124.75

AREA B: 2500′ TO 4500′ 120.6
5000′ TO 9000′ 124.75


Halstead
Arkansas River
20 NM
V73E
V261
V77
Sedgwick
Furley
Mt. Hope
V73
15 NM
V12
Miles (Pvt.)
Benton
AREA A
AREA B
AREA C
Comotara
Maize
Riverside
ICT
V350
Copeland
Beech Factory
Cessna Aircraft
Augusta Muni
Augusta
Cheney Dam
V256
Garden Plain
WICHITA MID-CONTINENT
Westport
McCONNELL AFB
Afton Lake
Lake Waltanna (Pvt.)
Westport Aux
Cook
Hamilton
Douglass
AREA A
AREA B
AREA C
V12
Viola
Kendrigan (Pvt.)
V73
Udall
Conway Springs
15 NM
Belle Plaine
V77
20 NM
Wellington

AREA C: 2500′ TO 4000′ 134.8
4500′ 120.6
5000′ TO 9000′ 124.75

LEGEND

VFR CHECK POINT

▧ SURFACE TO 9000′ MSL

▨ 4500′ MSL TO 9000′ MSL

▒ 2500′ MSL TO 9000′ MSL

AIRCRAFT LANDING AT ARPTS IN AREA "C" AND ARRIVING FROM THE EAST - CONTACT WICHITA APPROACH CONTROL 134.8 - 327.1

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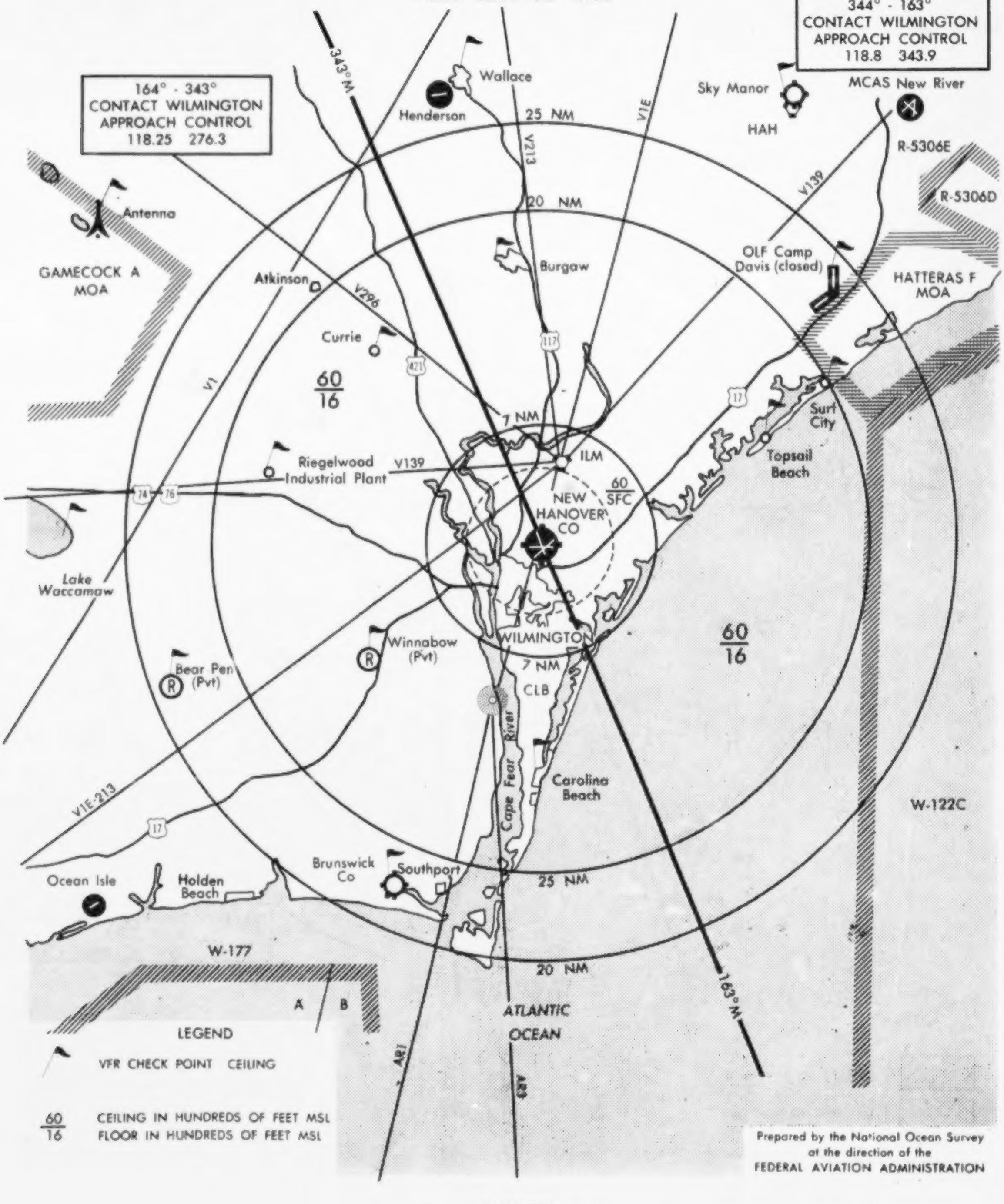
19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WILMINGTON, NORTH CAROLINA
NEW HANOVER COUNTY AIRPORT
FIELD ELEV 32' MSL


164° - 343°
CONTACT WILMINGTON
APPROACH CONTROL
118.25 276.3
344° - 163°
CONTACT WILMINGTON
APPROACH CONTROL
118.8 343.9
343°M
163°M
Wallace
Henderson
25 NM
20 NM
7 NM
V213
V1E
Sky Manor
HAH
MCAS New River
R-5306E
R-5306D
V139
Antenna
GAMECOCK A
MOA
Atkinson
V296
Burgaw
OLF Camp
Davis (closed)
HATTERAS F
MOA
Currie
421
117
V1
60
16
17
Surf
City
Topsail
Beach
Riegelwood
Industrial Plant
V139
ILM
74
76
60
SFC
NEW
HANOVER
CO
Lake
Waccamaw
WILMINGTON
Winnabow
(Pvt)
R
Bear Pen
(Pvt)
CLB
Cape Fear River
Carolina
Beach
W-122C
V1E-213
17
Brunswick
Co
Southport
Ocean Isle
Holden
Beach
W-177
A
B
ATLANTIC
OCEAN
AR1
AR1

LEGEND

VFR CHECK POINT CEILING

60	CEILING IN HUNDREDS OF FEET MSL
16	FLOOR IN HUNDREDS OF FEET MSL

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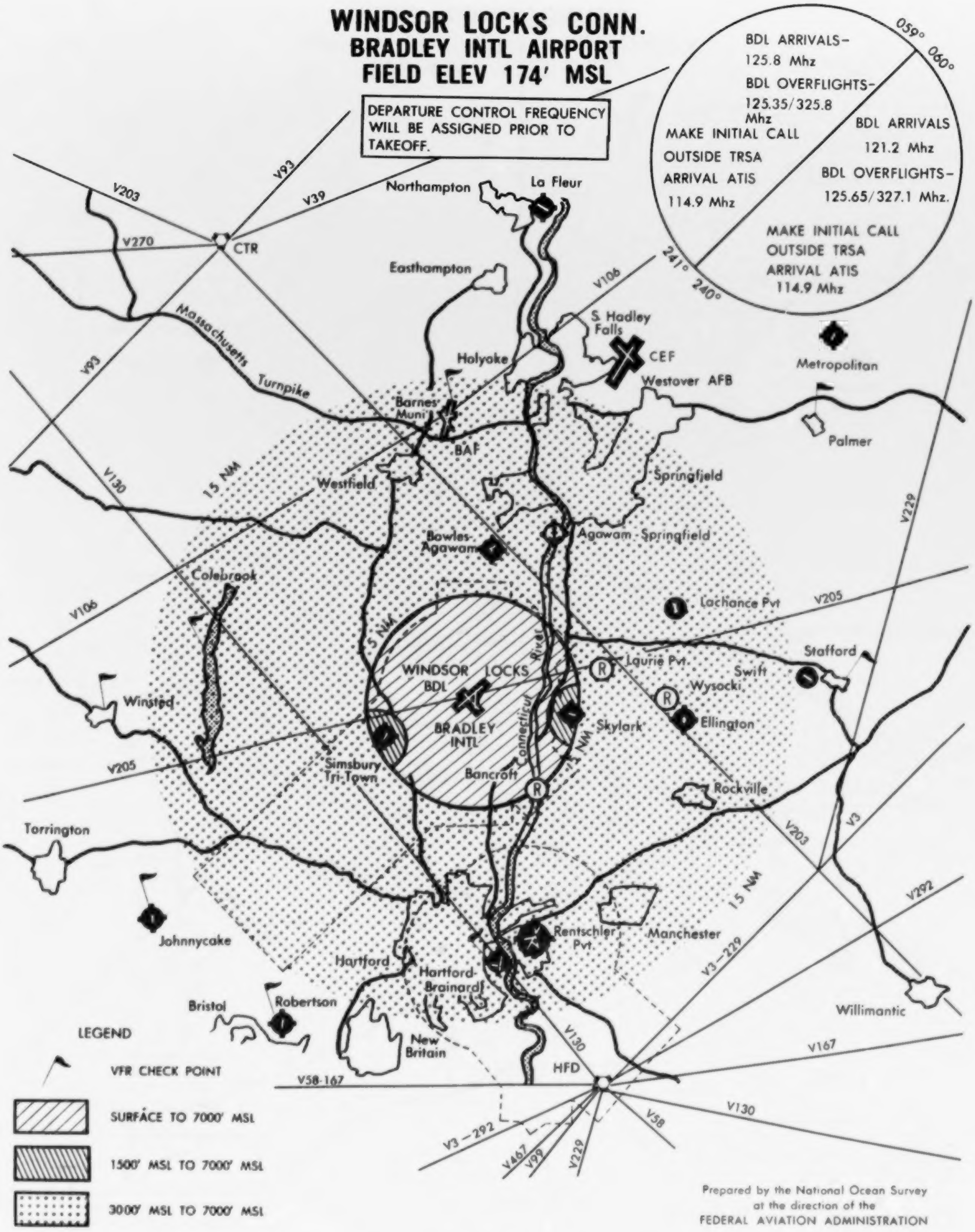
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WINDSOR LOCKS CONN.
BRADLEY INTL AIRPORT
FIELD ELEV 174′ MSL


DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKEOFF.
BDL ARRIVALS- 125.8 Mhz
BDL OVERFLIGHTS- 125.35/325.8 Mhz
MAKE INITIAL CALL OUTSIDE TRSA
ARRIVAL ATIS 114.9 Mhz
BDL ARRIVALS 121.2 Mhz
BDL OVERFLIGHTS- 125.65/327.1 Mhz.
MAKE INITIAL CALL OUTSIDE TRSA
ARRIVAL ATIS 114.9 Mhz
059°
060°
241°
240°
V203
V93
V39
V270
CTR
Northampton
La Fleur
Easthampton
V106
S. Hadley Falls
CEF
Westover AFB
Metropolitan
Massachusetts Turnpike
Holyoke
Barnes Muni
BAF
Palmer
Westfield
Springfield
V130
15 NM
Bowles-Agawam
Agawam-Springfield
V229
Colebrook
Lachance Pvt
V205
V106
5 NM
WINDSOR LOCKS
BDL
BRADLEY INTL
Connecticut River
Laurie Pvt.
Wysocki
Swift
Stafford
Ellington
Skylark
Winsted
V205
Simsbury Tri-Town
Bancroft
Rockville
Torrington
V203
V3
15 NM
V292
Johnnycake
Rentschler Pvt.
Manchester
V3-229
Hartford
Hartford-Brainard
Bristol
Robertson
New Britain
Willimantic
V130
V167
HFD
V58-167
V130
V58
V3-292
V467
V99
V229
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
1500′ MSL TO 7000′ MSL
3000′ MSL TO 7000′ MSL

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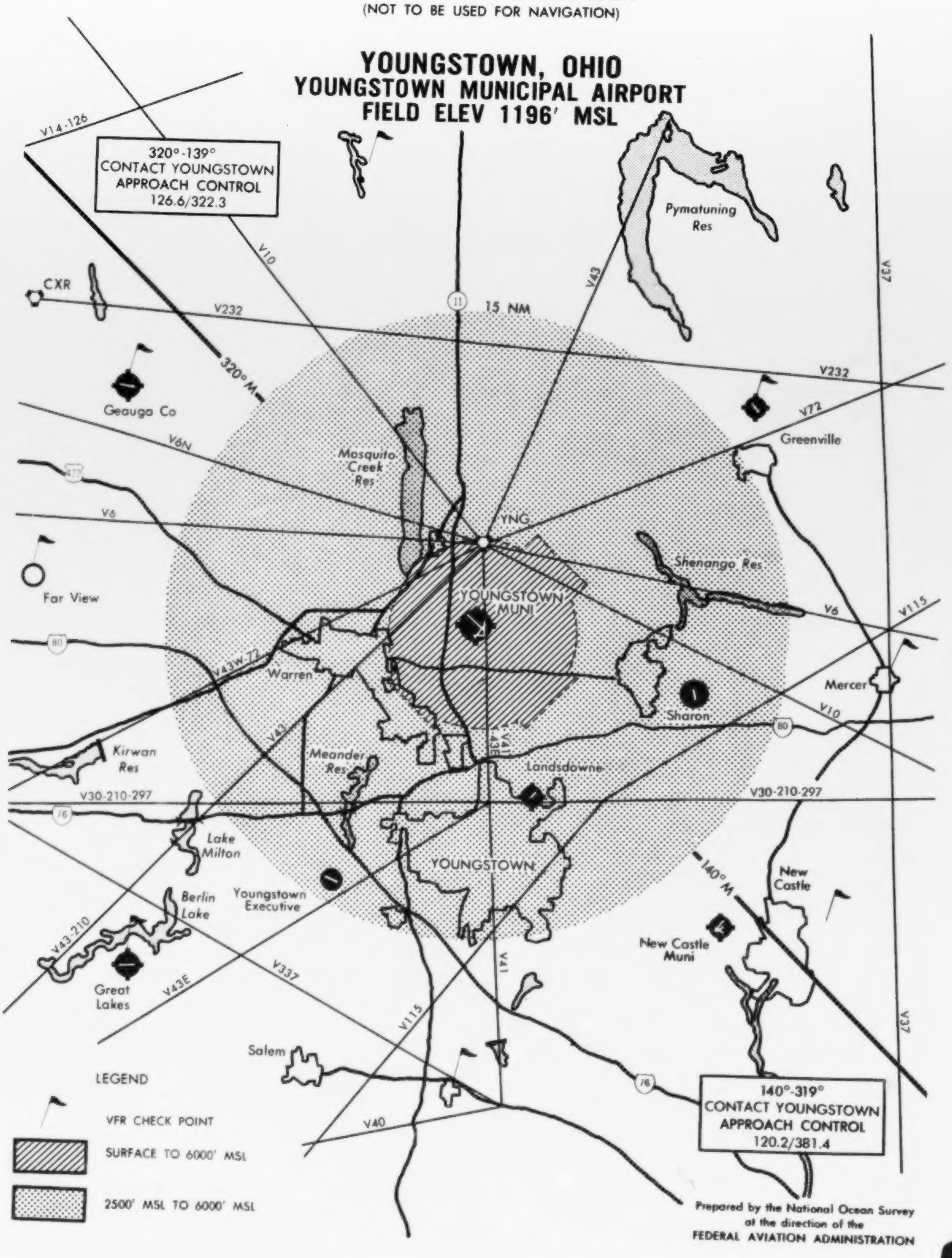
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

YOUNGSTOWN, OHIO
YOUNGSTOWN MUNICIPAL AIRPORT
FIELD ELEV 1196′ MSL


320°-139°
CONTACT YOUNGSTOWN
APPROACH CONTROL
126.6/322.3
V14-126
CXR
V10
V232
320° M
V43
Pymatuning Res
V37
11
15 NM
Geauga Co
V232
V72
Greenville
V6N
Mosquito Creek Res
V6
YNG
Shenango Res
Far View
YOUNGSTOWN MUNI
V6
V115
80
V43W-72
Warren
Sharon
Mercer
V10
V41
V43E
80
Kirwan Res
V43
Meander Res
Landsdowne
V30-210-297
V30-210-297
76
Lake Milton
YOUNGSTOWN
140° M
New Castle
Berlin Lake
Youngstown Executive
New Castle Muni
V43-210
Great Lakes
V337
V41
V115
V37
Salem
76
V40
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
2500′ MSL TO 6000′ MSL
140°-319°
CONTACT YOUNGSTOWN
APPROACH CONTROL
120.2/381.4

Prepared by the National Ocean Survey
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9 AUG 1979

U. S. GOVERNMENT PRINTING OFFICE : 1979 O - 307-295

Item 431-C-5 TD4.12/4: 980-2

APR 1 [illegible]

U.S. AIP SECTIONS:
RAC-9

315-821
560

APRIL 1980
Next
Issue
July
1980

Graphic Notices and Supplemental Data

contin

TD4.12/4: 9325

U.S. DEPARTMENT
OF TRANSPORTATION
Federal
Aviation
Administration

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on page __________ of the Graphics Notices and Supplemental Data,

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Graphic Notices and Supplemental Data also serves as the section RAC–9 in the *United States Aeronautical Information Publication.* The US AIP, issued in one volume, is the basic aeronautical information document published for international use and contains information of a lasting character, essential to international air navigation. It is available in English only and is maintained on a current basis by quarterly amendment service consisting of a checklist, reprinted pages and, in the case of minor amendments, manuscript corrections. This publication is a loose leaf publication made to fit a standard three ring binder. Subscriptions are available through the Superintendent of Documents. A subscription will consist of the basic issue (dated January, 1979) and seven amendments, as they are published. The next basic issue will be in January of 1981.

This manual is complementary to other publications which are available upon separate subscription. These publications are:

Airmen's Information Manual (Basic Flight Information and ATC Procedures)—A publication containing the basic fundamentals required in order to fly in the U.S. NAS. It also contains items of interest to pilots concerning health and medical facts, factors affecting flight safety, a pilot/controller glossary of terms used in the Air Traffic Control System, and information on safety, accident and hazard reporting.

Notices to Airmen (Class-II)—A publication containing current Notices to Airmen (NOTAMs) which are considered essential to the safety of flight as well as supplemental data affecting the other operational publications listed here. It also includes current FDC NOTAMs, which are regulatory in nature, issued to establish restrictions to flight or amend charts or published Instrument Approach Procedures. This publication is issued every 14 days and is available through subscription from the Superintendent of Documents.

Airport/Facility Directory, Alaska Supplement, Pacific Supplement—These publications contain information on airports, communications, navigational aids, instrument landing systems, VOR receiver check points, preferred routes, FSS/Weather Service telephone numbers, Air Route Traffic Control Center (ARTCC) frequencies, part-time control zones, and various other pertinent, special notices essential to air navigation. These publications are available upon subscription from the National Ocean Survey (NOS), Distribution Division (C–44), Riverdale, Maryland 20840.

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration is responsible for insuring the safe and efficient use of the Nation's airspace, by military as well as civil aviation, for fostering civil aeronautics and air commerce in the United States and abroad, and for supporting the requirements of national defense.

The activities required to carry out these responsibilities include: safety regulation; airspace management and the establishment, operation, and maintenance of a civil-military common system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the agency under one particular situation or another may or may not furnish information does not serve as a precedent of the agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Administration to furnish information only when, in the opinion of the agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

TABLE OF CONTENTS

	Page
Area Advisories	ADZY-1
Area Navigation (RNAV) Routes	RNAV-1
Civil Flight Test Areas	CIV-1
North Atlantic Minimum Navigation Requirements	NAT-1
North Atlantic Standardized Air/Ground Messages	NAT-4
North American Routes for North Atlantic Traffic (NAR)	NAT-5
Terminal Area Graphics (listed alphabetically)	TERM-1
Terminal Radar Service Area Graphics (TRSA) (listed alphabetically)	TRSA-1

AREA ADVISORIES

THE FOLLOWING ADVISORIES CONTAIN AERONAUTICAL INFORMATION THAT DOES NOT CONCERN A SPECIFIC AIRPORT OR NAVAID, OR FAILS, FOR SOME OTHER REASON, TO MEET THE CRITERIA FOR INCLUSION INTO OTHER PERMANENT BASE LINE PUBLICATIONS SUCH AS THE *AIRPORT/FACILITY DIRECTORY*. SUCH INFORMATION WILL BE AUTOMATICALLY TRANSFERRED TO THIS PUBLICATION FROM THE *NOTICES TO AIRMEN* (CLASS II) PUBLICATION WHEN THE ORIGINATOR INDICATES THAT THE ADVISORY IS EITHER PERMANENT OR EXPECTED TO REMAIN CURRENT LONG ENOUGH TO WARRANT PUBLICATION HERE. THESE ADVISORIES ARE GROUPED UNDER STATE HEADINGS, AND, WHERE APPROPRIATE, UNDER CITY OR GEOGRAPHIC LOCATIONS. ADVISORIES THAT PERTAIN TO MORE THAN ONE STATE OR REQUIRE A FULL PRINTED PAGE WILL BE INCLUDED UNDER THE *GENERAL* HEADING. THE NUMBER IN PARENTHESIS FOLLOWING EACH ENTRY IS THE MONTH AND YEAR THAT THE ADVISORY WAS ISSUED.

GENERAL

SPECIAL NOTICE—UNICOM:

(A) At the present time there are three UNICOM frequencies, 122.7, 122.8, and 123.0 available for assignment to uncontrolled airports. In the past, no attempt has been made to assign these frequencies in such a way as to reduce frequency congestion between adjacent airports. To reduce frequency congestion, a frequency assignment plan has been developed for 15 areas of the country which have a high concentration of uncontrolled airports. Specifically, these areas are: New York/New Jersey, Washingtion, D.C./Maryland/Virginia, Atlanta, Chicago/Milwaukee, Cleveland, Los Angeles, Denver, Cincinnati/Dayton/Columbus, Seattle, Detroit/Toledo, Indianapolis, Houston, Dallas/Fort Worth, Pittsburgh and Boston. The FCC has requested a significant number of UNICOM operators located in the above areas to change frequencies in accordance with the plan.

(B) Over the next 6 to 12 months there will be numerous UNICOM frequency changes. During this transition period directory/supplements or appropriate charts may not accurately reflect UNICOM frequency assignments at uncontrolled airports. Pilots destined for one of the areas noted above are urged to verify the UNICOM frequency in use during preflight briefings or with the FSS associated with the airport destination. (3/80)

ARIZONA

THE GRAND CANYON CAVERNS AREA: Quarry located 3 miles west-southwest of Grand Canyon Caverns Landing Strip. Aircraft are cautioned to avoid this area during daylight hours, if necessary to fly over the area maintain a minimum altitude of 4000 feet AGL due to possible damage from flying rocks or turbulence caused by blasting. (3/78)

GRAND CANYON AND PETRIFIED FOREST NATIONAL PARKS: All pilots are requested to avoid flying below the canyon rim and to maintain a distance 1500 feet above and horizontally from all scenic overlooks, parks, and trails. (10/74)

CALIFORNIA

SALINAS RIVER AND OCEAN SHORELINE: Avoid flying below 1000 feet over a 400 acre Wildlife Refuge along the south side of the mouth of the Salinas River and ocean shoreline eastward. (1/76)

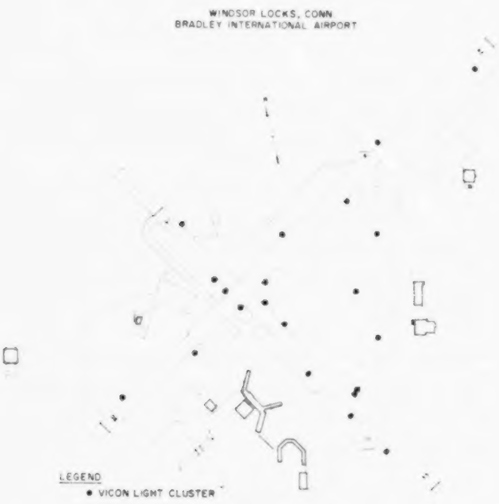
CONNECTICUT

BRADLEY INTERNATIONAL AIRPORT: Visual confirmation of voice takeoff clearance (VICON) test. During the period between August 1979 through March 1980, an operational evaluation will be conducted at the Bradley International Airport, of an experimental light system which is intended to enhance safety by providing a second stimulus (visual) which is used to "CONFIRM" the voice takeoff clearance. The non-standard light system is installed at all departure points on all runways of the Bradley International Airport.

The system is to "CONFIRM" the voice takeoff clearance by a pulsating green light which will be turned on or activated by the control tower operator at the time takeoff clearance is issued. The lights are located so that they will always be found in the front left quarter, as viewed by the pilot, from the aircraft when in takeoff position on the runway. The lights, a cluster of three lamps, will be visible from the runup pad, when near the runway, and when lined up on the active runway.

The VICON confirmation lights are turned off automatically by electronic devices. At all intersections and the ends of runway 01 and 19, the electronic device will be a timer. The timing may be varied during the testing period. At departure points where the timer devices are utilized, the lights may turn off prior to the start of the takeoff roll or prior to passing the VICON light. The light going out, *does not* indicate your takeoff clearance has been cancelled, only the voice instruction from the control tower will cancel the takeoff clearance. (9/79)

VISUAL CONFIRMATION OF VOICE TAKEOFF CLEARANCE
VICON



DISTRICT OF COLUMBIA

WASHINGTON NATIONAL AIRPORT: Turbojet policy except under emergency conditions and subject to observance of noise abatement procedures, only those turbojet aircraft meeting the following criteria can be accommodated: A. Approved types of turbojet aircraft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operation, (2) Air carrier (including supplemental air carriers) and commercial operator training charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Saulnier 760 (4) Jet Commander (Aero Commander) (5) Learjet (6) Hawker Siddley DH-125 (7) Hansa Jet HFB 320 (8) Fan Jet Falcon (9) Caravelle (10) DC-9 series 10, 30 and 50 (11) BAC-111 (12) Boeing 727 series thru 200 approved under controlled conditions, (13) Boeing 737 series 100 and 200 (14) Gulfstream II (15) Cessna Model 500 Citation C. Turbojet aircraft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet aircraft described in paragraph B (9) through (13) may not be operated into or out of airport on a flight segment of more than 650 statute miles except for non stop flights of less than 1000 miles operating to or from the following cities: Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla. Runway 15 available all jet takeoffs. No runup in position prior to takeoff. Rolling takeoffs only. In the interest of noise abatement, all non-scheduled turbojet operators are requested not to land at or takeoff from Washington National Airport 2300-0700 local time. (10/74)

WASHINGTON ARTCC: Enroute radar service, VFR advisory service and merging target service below 10000 feet MSL available only to transponder equipped aircraft in Roanoke, Lynchburg, Charlottesville, Danville and Elkins. (2/78)

WASHINGTON NATIONAL AIRPORT: Lead-in light system located at upstream side center of Memorial Bridge angled to intercept altitude of 900 feet MSL over Key Bridge. (8/78)

WASHINGTON NATIONAL ATCT: LOCAL FLOW TRAFFIC MANAGEMENT—TURBOJET ARRIVALS: Washington National Tower, in conjunction with the Washington ARTCC, has implemented a metering plan designed to minimize low altitude holding, reduce radar vectors at speeds requiring the extension of flaps and to provide for an orderly flow of traffic to the final approach course. Dependent upon the airport acceptance rate, in-trail spacing between successive arrivals may necessitate using speed adjustments prior to reaching the Washington Terminal Area. Descent, under most conditions, will be from arrival fixes established 30 to 36 miles from the runway end. Advance notice as to where to expect descent and when to expect base leg should be given. It is imperative that pilots control their descent at a uniform rate to preclude intermediate altitude restrictions. (Procedures are based on a near idle thrust, 300 feet per mile descent in still air conditions.) (11/78)

FLORIDA

MIAMI: Balloon flights will be made to 1500 feet AGL sunrise-sunset in an area 5 miles north of the Miami VORTAC, about 6 miles south/southwest of the intersection of US highway and State highway 84. (3/78)

AREA ADVISORIES

GEORGIA

ATLANTA TOWER SPECIAL NOTICE: Low altitude airway structure in proximity of the William B. Hartsfield Atlanta International Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid Heavy Concentration of high performance and wide-bodied aircraft, pilots should file airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local time. (6/78)

ILLINOIS

CHICAGO, O'HARE INTL AIRPORT: Surface wind information provided by O'Hare Tower directly to landing aircraft, for all runways except 18–36, will be derived from wind sensor equipment near each runway threshold rather than from the centerfield wind sensor equipment; except that the center field source will be used during outages of threshold sensors. Surface wind information in weather reports, ATIS broadcasts and given directly to departing aircraft will continue to be from the centerfield source. (9/79)

CHICAGO/WEST CHICAGO, DUPAGE COUNTY AIRPORT: Traffic advisory, high volume of concentrated VFR traffic west of airport; aircraft approaching this area should be alert for north-south VFR traffic circumnavigating O'Hare TCA and not in radio contact with Dupage tower or Chicago ARTCC. (9/78)

KENTUCKY

COVINGTON GREATER CINCINNATI AIRPORT: Runway Alignment Indicator System Experimental (RAISE) located extended center line runway 18, 8630 feet north of threshold. System appears as an inverted T with 5 light stations forming the cross of the T, and 2 additional light stations forming the leg of the T. All lights are red and system operates in steady burning mode. Minimum crossing height 1300 feet MSL for visual approaches from north. ILS Glide Path altitude is 1300 feet MSL over RAISE. (10/4)

MAINE

MOSCOW/CARATUNK, SOMERSET COUNTY: The U.S. Air Force will be operating an experimental radar system transmitter located at latitude 45°10′25″N 69°51′40″ West on an intermittent basis (approximately 40 hours per week) until June 1981. The transmitter will be operating on FM/CW frequencies between 6.75–21.85 mhz. The transmitted energy will create an area hazardous to aircraft carrying electro-explosive devices. The area will also be hazardous to airborne high frequency radios. All aircraft are cautioned to avoid the area within 2 nautical miles radius of the antenna site below an altitude of 6500 feet MSL. Aircraft, in particular, should avoid penetrating the airspace beginning at the antenna site and extending 1 mile along the boresite of 46.5 degrees true at an altitude of 5000 feet and below within ½ mile of either side of the boresite. (1/80)

MASSACHUSETTS

SPECIAL NOTICE: Weather warning signs installed airport ramp areas at number Cape Cod and bordering Island locations. Signs function with associated flashing lights during periods where IFR or other hazardous weather is current or forecast. Sign and light system operations at Chatham, Martha's Vineyard, Hyannis, New Bedford, Plymouth, and Nantucket during hours airport attended or tower open. (9/79)

BOURNE: Aircraft operating below 2000 ft and within 3 miles of Pave Paws radar site located in Restricted Area 4101 may experience momentary erratic operation of cockpit instruments or navigational equipment. Pilots are encouraged to submit reports of such occurrences to nearest FAA Air Traffic Facility. (5/79)

BOSTON: The low altitude route structure in the proximity of Boston is aligned so as to provide expeditious bypass routes for traffic overflying Boston. With the exception of aircraft operating between Maine and Cape Cod, aircraft requesting IFR flight between the hours of 0800–2100 local time, at and below altitudes 14,000 feet MSL withing 40 NM of Boston, can except bypass routings to be assigned. Maine and Cape Cod traffic may use the routing Hyannis VORTAC (HYA) 353 Radial TONNI Intersection V139 Kennebunk VORTAC (ENE), or vice-versa, as appropriate. In order for other aircraft to avoid the concentration of high performance aircraft arriving and departing Boston between the hours 0800–2100 local, pilots should file for airways beyond 40 NM from Boston VORTAC. (3/80)

MINNESOTA

HIBBING: Extensive open pit mine blasting operations being conducted from 12 nautical miles southwest to 48 northeast of Hibbing. Possible debris to 4000 feet. Contact Hibbing FSS for blasting schedule. (5/76)

NEW JERSEY

NEW YORK ARTCC: The New York Air Route Traffic Control Center, in concert with the Philadelphia, Atlantic City and McGuire AFB Approach Control Facilities, has developed restricted airspace procedures in support of an intensive RCA/US Navy test program. The area concerned is east of a line from SBY (Salsbury VOR) to PNE (North Philadelphia) VOR and south of line from the PNE VOR to the MANTA intersection on V139 and primarily in the vicinity of ACY (Atlantic City, NJ), McGuire AFB, NAS Lakehurst, and Philadelphia. The Program will continue for an extended period. Discrete times and altitudes will be used in the flying test profiles to have as little impact as possible on normal traffic flow. Appropriate daily NOTAMs will be issued concerning airspace restrictions. Some slight delays to IFR traffic may be encountered. New York Center Flow Control Printer Information will also be issued with restrictions if necessary, however, delays if any will be kept to the minimum. (8/78)

NEW YORK

NIAGARA FALLS: Recommended VFR Flight Procedures in the "Niagara Scenic Falls" Area. (A) Due to the high concentration of Sightseeing Flights in the Niagara Falls Area and in the interest of Flight safety, the following procedures are recommended:

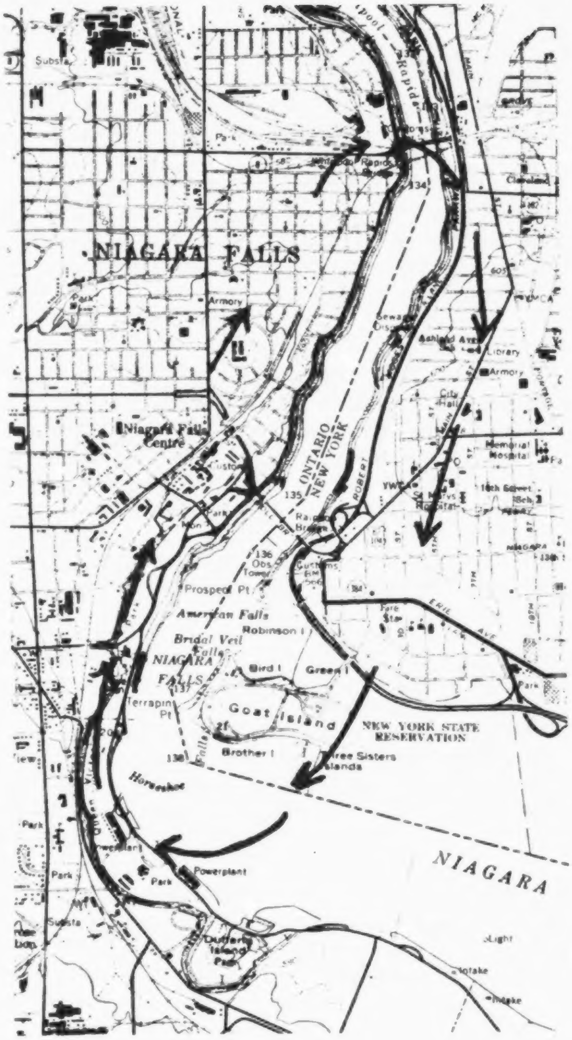
(1) A right hand circuit pattern with north end right turn area, south of the *railroad* bridge across the Niagara Gorge—and southern right turn area near the town of Chippewa, (south shore of Niagara River).

(2) On joining the right hand pattern, pilots should broadcast their intentions on frequency 122.9 MHz, giving their cruising altitude and point of entry: i.e., northbound or southbound, and monitor the frequency while in the pattern.

(3) It is recommended that (a) helicopters operate in the pattern between 2000 and 2200 ft. AGL. (b) fixed wing aircraft operate in the pattern between 2500 and 3000 ft. AGL. (c) turbo prop/jet and aircraft with cruise speeds of 150 kts.+, operate in this pattern above 3200 ft. AGL.

Although these procedures are intended to segregate traffic, VFR rules of "See and Be Seen" and good airmanship practices will prevail.

(B) IMPORTANT NOTE: Obtain current altimeter setting prior to joining the pattern through either Niagara Falls tower frequency, or St. Catharines tower frequency. *All Pilots* are cautioned that the areas on both sides of the Niagara Gorge between "The Whirlpool" and "Horseshoe Falls" are extremely noise sensitive. Maintain at least 2200 ft. AGL over this area prior to joining the pattern. (3/80)


NIAGARA FALLS
ONTARIO
NEW YORK
Niagara Falls Centre
Armory
Library
Memorial Hospital
Prospect Pt
Obs. Tower
American Falls
Bridal Veil Falls
Robinson I
NIAGARA FALLS
Bird I
Green I
Terrapin Pt
Goat Island
Brother I
Three Sisters Islands
NEW YORK STATE RESERVATION
Horseshoe
Powerplant
Park
Dufferin Islands Park
NIAGARA

NEW MEXICO

FARMINGTON: Blasting daily 0900–1700 between the Farmington VOR 120 degree to the 330 degree radials beyond 10 DME miles. Caution should be exercised if operating below 500 feet AGL near drag lines or drilling rigs. (6/78)

OREGON

BIRD HAZARDS: Heavy concentration of migratory and wintering flocks of large waterfowl throughout central Oregon from the Washington to California borders annually November to May. Caution advised at all airports or while transiting area.

AREA ADVISORIES

TEXAS

SAN ANTONIO: April to October large concentrations of bats are observed in the vicinity of Bracken Cave located 5.5 miles east of SAT VORTAC. Most activity is observed near sunset and sunrise at altitudes up to 10000 feet.

UTAH

BINGHAM CANYON: Unmarked cables and pole lines suspended across canyon and in vicinity of the open pit mine. (10/74)

FLAMING GORGE DAM SITE: Cables and power lines suspended from 2 towers on west side to one tower on east side of canyon across Green River approximately 100 feet higher than canyon rim. (10/74)

VIRGINIA

SHENANDOAH VALLEY AIRPORT—AUTOMATIC WEATHER SYSTEM OPERATIONAL: (A) The first automatic weather observing and reporting system to meet FAA performance and installation requirements is now operational at Shenandoah Valley Airport (SHD), Staunton, Virginia.

(B) The "Weather-Check V," designed and produced by Artais Incorporated of Columbus, Ohio, received FAA system approval in August and installation approval at SHD in January. The system consists of sensors which constantly measure temperature, dewpoint, wind and pressure. These elements, as well as manually entered NOTAM data, are processed into an automatic voice which is transmitted every minute over the Staut NDB, "SH" on 375 khz (and also available by telephone, area code 703, 234-9345). The system thus continually reports real-time weather data directly to the pilot.

(C) The following is an example of the voice message: "Shenandoah Valley Airport, time one two three four Greenwich, temperature five two, dewpoint four seven, wind two six zero at one five gusting two four, altimeter two nine nine seven, NOTAMs missing." If any data is either unavailable or invalid (as determined by the machine's internal verification processes), it is reported as "missing."

(D) "Weather-Check V" information received over the SH NDB may be used for VFR and IFR operations. When indicated on the revised instrument approach charts, the altimeter setting may be used for the conduct of actual IFR approaches to the airport. (Should the altimeter setting be not received and/or reported "missing," the designated remote altimeter source and associated higher approach minimums would apply.)

(E) Throughout 1980, additional Weather-Check sites and additional weather elements (such as visibility) are expected. (3/80)

WASHINGTON

ARLINGTON AIRPORT: Unmarked/unlighted horizontal and vertical cables blocking canyon from 3217 feet MSL to canyon floor located 10 nautical miles east northeast airport. Six structures on each side of canyon are marked and lighted. (9/77)

COLUMBIA RIVER BASIN: Bird Hazard—Heavy concentration of migratory and wintering flocks of large waterfowl throughout the Columbia River Basin from the Canadian to Oregon borders annually November to May. Caution advised to all airports or while transiting area.

HANFORD: Numerous unmarked/unlighted tall structures located within 12 nautical miles of radius of Hanford, Washington. Pilots are advised to maintain at least 1000 feet above surface in this area. (11/77)

WISHRAM: Unmarked powerlines from north shore of Columbia River to Millers Island 2 nautical miles east of Wishram Washington, 250 feet above the water 712 feet MSL. (2/78)

WYOMING

SHERIDAN: Coal mine blasting surface to 1000 feet AGL 27 nautical miles northeast of Sheridan. Blasting will continue indefinitely. (10/74)

YELLOWSTONE NATIONAL PARKS: Due to increasing low level flights over national parks, pilots are requested to maintain 2000 feet AGL when transiting Yellowstone National Parks unless aircraft capability is exceeded. (9/72)

AREA NAVIGATION ROUTES (RNAV)

Area navigation systems permit navigation via a selected course to a predefined point without having to fly directly toward or away from a navigational aid. Typical of such systems are doppler radar, inertial and course line computers.

Introduction of the area navigation capability into the National Airspace System provides a means of overcoming many of the constraints of the VOR system. Elimination of the requirement to fly along radials that lead directly to or from the ground station makes it possible to design routes and procedures that better facilitate the movement of traffic.

Guidelines for the implementation of area navigation within the National Airspace System were issued in the form of Advisory Circular 90–45A on 2 February 1975. Advisory Circular 90–45A contains standards and methods for obtaining approval for use of area navigation equipment in IFR operations. It also contains air traffic control procedures applicable to approved area navigation equipment.

Since the VOR system forms the basis for the existing airway and air traffic control systems, area navigation route definitions and air traffic control clearances will be in terms of, and referenced to, VOR ground stations. However, latitude/longitude descriptions of fixes forming area navigation routes are provided to facilitate the use of airborne systems that are not dependent on VOR input signals.

Area navigation routes are numbered in a manner similar to VOR airways and jet routes. The suffix "R" identifies the route as an area navigation route. When filing an IFR flight plan containing an area navigation route, the route number may be filed in the same manner as a VOR airway number. The filed route should clearly define the intended route during transition from the VOR structure to the area navigation structure.

Area navigation route numbering will be as follows:

(1) **Series 700 (low) and 800, 900 (high) routes**—Routes designated in Parts 71 and 75. Routes expected to be in frequent use by more than one user and published on appropriate U.S. Government Charts. MEAs will be published in FAR 95.

(2) Series 500 (low) and 600 (high) routes—Routes published in the Graphic Notices and Supplemental Data. Routes planned for more than one user but their expected usage does not justify Government charting. MEA's when not published in FAR 95 and the Graphic Notices and Supplemental Data, will be provided by ATC.

(3) Series 300 (low) and 400 (high) routes—Routes established primarily for one user. Not carried on Government charts. MEAs will be periodically published in the listing of non-95 routes.

The routes contained herein are those of the 500 and 600 Series.

Each area navigation route listed is based on a centerline which extends between fixes, described by reference to VOR/DME, called waypoints, specified for that route. Each waypoint is listed by geographical name, followed by the VOR/DME fix description in the format: VOR STATION RADIAL/DME MILEAGE (example POM 033/010). Also included are the track to be flown (Mag track), the VOR changeover point (COP, with "MP" indicating Midpoint) the distance (DIST) between waypoints, and the latitude/longitude description.

HIGH ALTITUDE AREA NAVIGATION ROUTE (UNCHARTED)

J620R

Hemlo (Pacific Ocean) to Dayah, Oregon

WAYPOINT NAME	DESCRIPTION VOR/DME	GEOGRAPHICAL COORDINATES
Hemlo	ONP 216.0/137.0	43°18'08",126°40'49"
MAG TRACK: 047.4/229.8		DIST: 158
COP: NOT REQUIRED		MEA: 18000
		MAA: 45000
Eugene	ONP 105.8/45.2	44°07'16",123°13'18"
MAG TRACK: 056.2/237.7		DIST: 95
MAG TRACK: 059.1/240.2		DIST: 70
COP: 95 E EUGENE		MEA: 18000
		MAA: 45000
Dayah	PDT 178.3/69.4	44°33'58",119°26'45"

SPECIAL OPERATIONS

CIVIL FLIGHT TEST AREAS

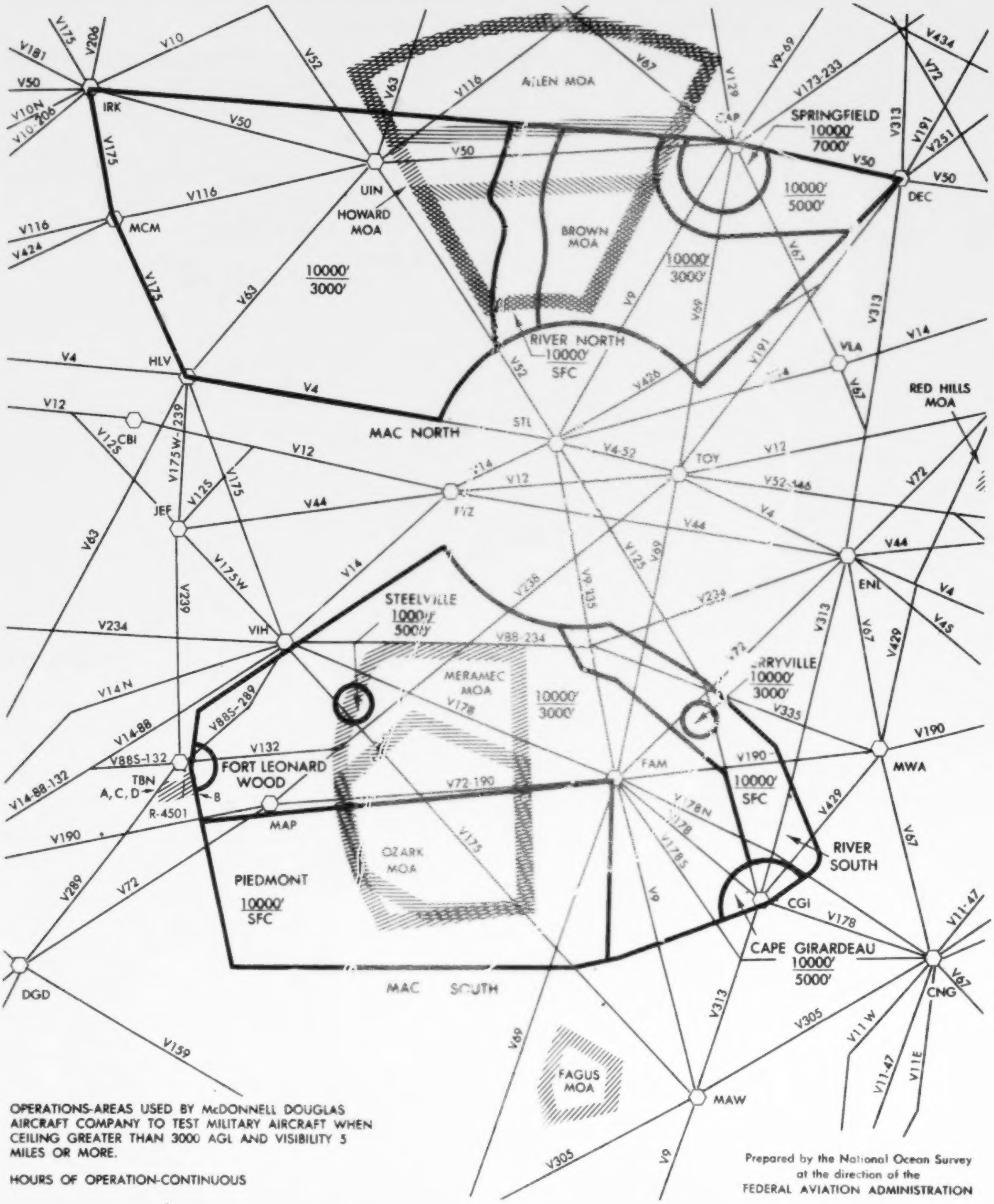
The graphics on the following pages depict areas that have been designated as flight test areas for civil aircraft manufacturers. These flight tests shall be conducted under the following conditions.

Operations—Conducted by military jet type aircraft at indicated airspeeds above 250 knots when ceiling greater than 3,000 feet AGL and visibility five (5) miles or more.

Altitudes—10,000 feet to surface.

Hours of Operations—Check graphics or Flight Service Station for hours of operation.

MCDONNELL AIRCRAFT COMPANY
MCAIR LOW ALTITUDE FLYING AREAS


ALLEN MOA
SPRINGFIELD
10000′
7000′
10000′
5000′
HOWARD MOA
BROWN MOA
10000′
3000′
10000′
3000′
RIVER NORTH
10000′
SFC
MAC NORTH
RED HILLS MOA
STEELVILLE
10000′
500′
MERAMEC MOA
10000′
3000′
PERRYVILLE
10000′
3000′
FORT LEONARD WOOD
10000′
SFC
RIVER SOUTH
OZARK MOA
PIEDMONT
10000′
SFC
CAPE GIRARDEAU
10000′
5000′
MAC SOUTH
FAGUS MOA
TBN
A, C, D
B
R-4501
IRK
UIN
CAP
DEC
MCM
HLV
CBI
STL
TOY
FTZ
JEF
VLA
ENL
VIH
FAM
MWA
MAP
CGI
CNG
DGD
MAW
V10
V50
V52
V63
V67
V116
V129
V9-69
V173-233
V434
V72
V313
V191
V251
V175
V206
V181
V10N
V10-206
V116
V424
V4
V12
V125
V175W-239
V14
V44
V4-52
V52-546
V426
V9
V69
V191
V67
V239
V175W
V234
V238
V9-235
V88-234
V14N
V14-88
V88S-289
V88S-132
V14-88-132
V132
V178
V72-190
V190
V335
V429
V178N
V178S
V45
V289
V159
V305
V11W
V11E
V11-47

OPERATIONS-AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION-CONTINUOUS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

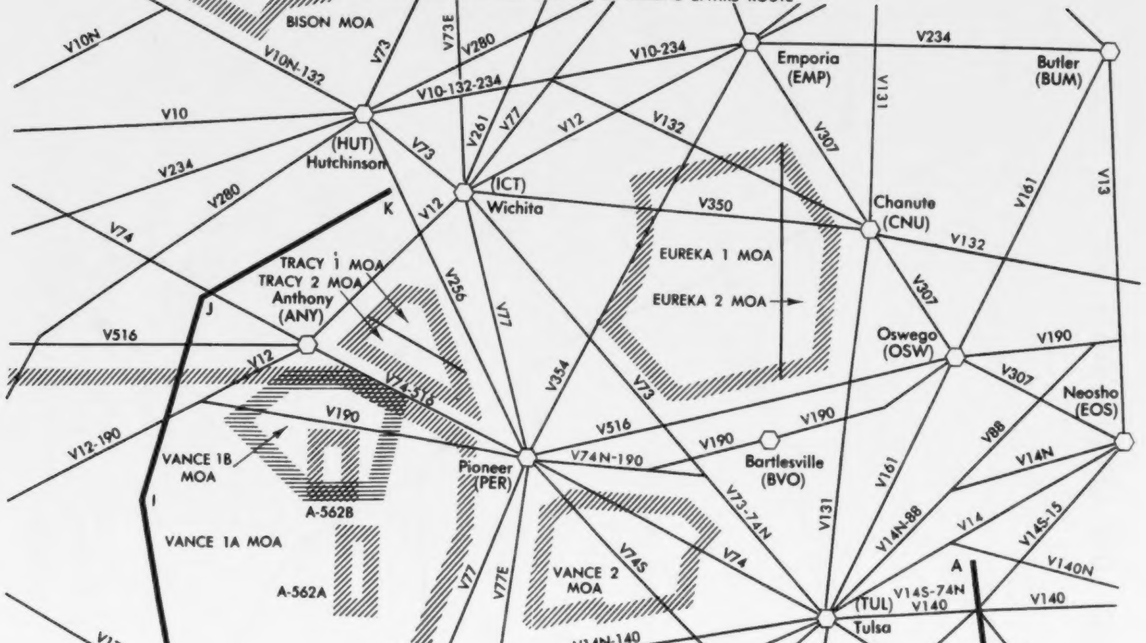
24 JAN 1980

BOEING LOW LEVEL ROUTE #1

HOURS OF OPERATION-CONTINUOUS

OPERATIONS-CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH-4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE


BISON MOA
V10N
V10N-132
V73
V73E
V280
V10-234
Emporia
(EMP)
V234
Butler
(BUM)
V10-132-234
V10
(HUT)
Hutchinson
V234
V280
V73
V261
V77
V12
V132
V131
V307
V161
V13
V74
K
V12
(ICT)
Wichita
V350
Chanute
(CNU)
V132
TRACY 1 MOA
TRACY 2 MOA
Anthony
(ANY)
J
V256
V77
EUREKA 1 MOA
EUREKA 2 MOA
V307
V516
V12
V74-516
V354
V73
Oswego
(OSW)
V190
V307
Neosho
(EOS)
V12-190
V190
V516
V190
V88
VANCE 1B MOA
Pioneer
(PER)
V190
V74N-190
Bartlesville
(BVO)
V161
V14N
A-562B
I
VANCE 1A MOA
V73-74N
V131
V14N-88
V14
V14S-15
A-562A
V77
V77E
VANCE 2 MOA
V74S
V74
A
V140N
V14S-74N
(TUL)
Tulsa
V140
V140
V17
V14N-140
V74N
H
V140
V74S
V131-161
V15
V74
V17W-210
(IFI)
Kingfisher
V14N-77E
V14
Okmulgee
(OKM)
V140-272N
V17W-210-272N
(OKC)
V14S
V74S
V272
Oklahoma City
V210
V272S
V14-272S
V210-272
V131
V63
B
C
G
V272
Hobart
(HBR)
V14
V14S
V163
V14
R-5601D
R-5601 B
R-5601A
V163W
V15-161
McAlester
(MLC)
R5601 E
A-561A
V77
V17-77E
F
V15E
E
SHEPARD 1 MOA
RIVERS MOA
A-561B
V77E
(DUC)
Duncan
V114
Wichita Falls
SHEPARD 2 MOA
Ardmore
(ADM)
V63
D
V102-114S
(SPS)
V17
V102S
A-636
V161-163
V358
V15

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

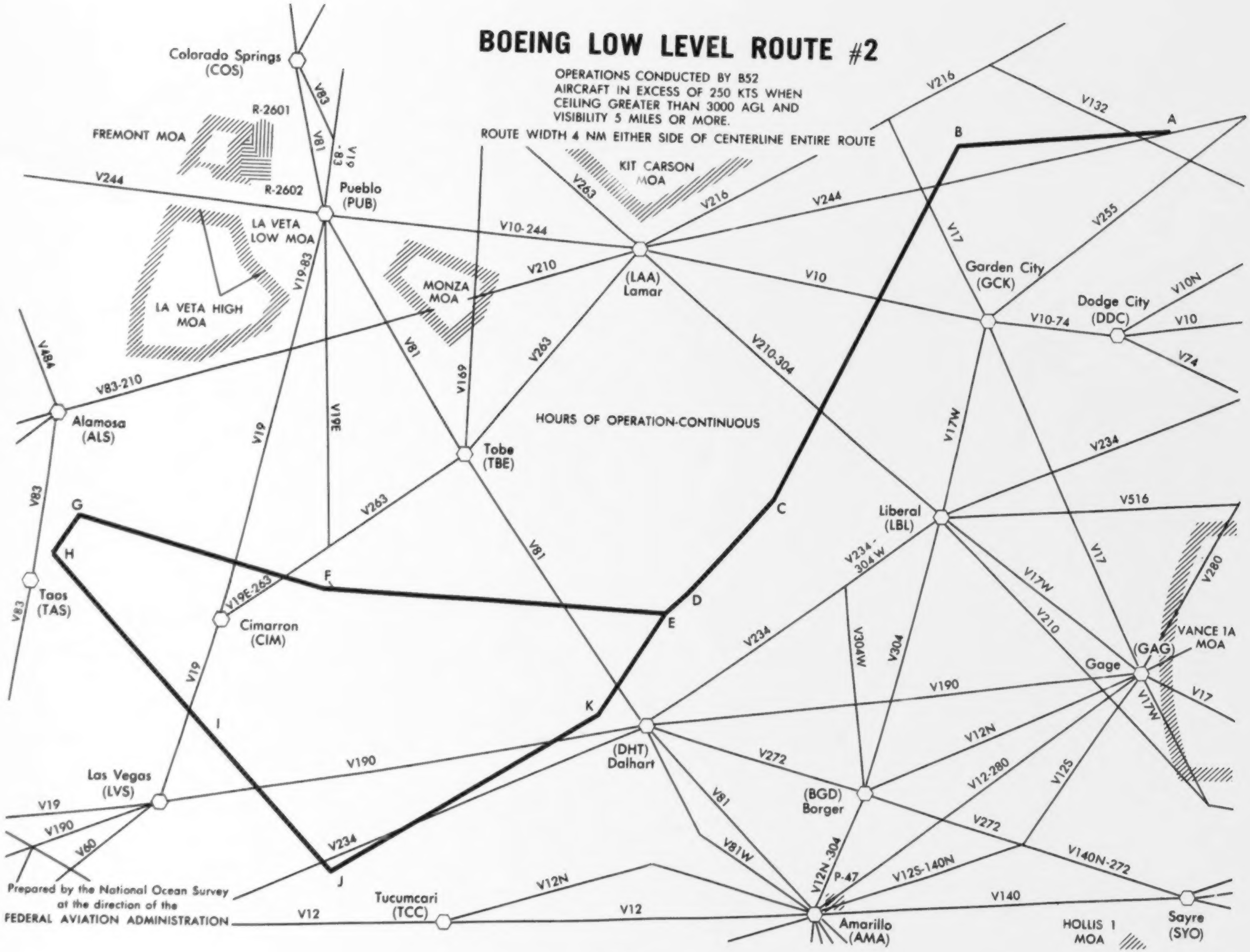
19 APR 1979

BOEING LOW LEVEL ROUTE #2

OPERATIONS CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH 4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE

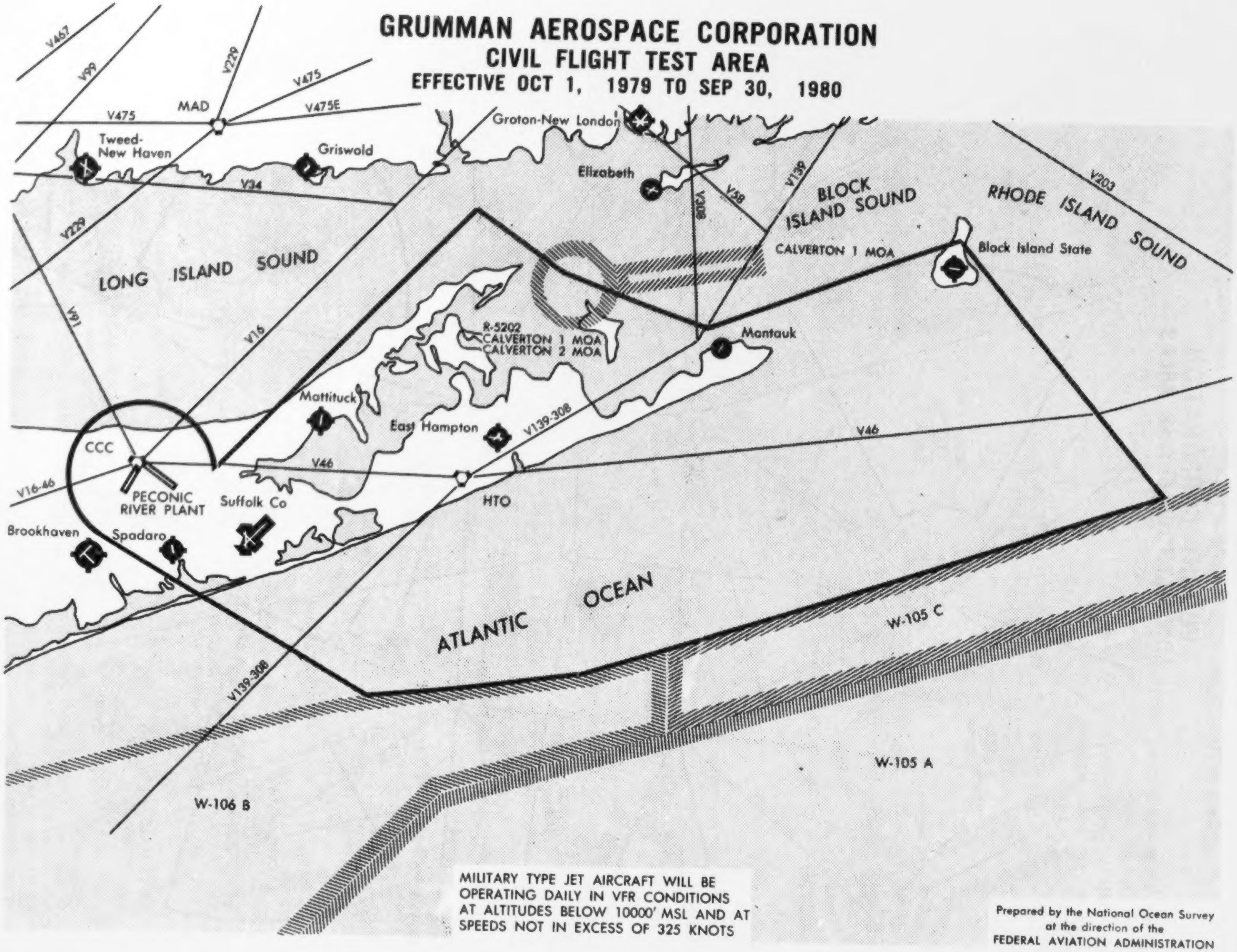
HOURS OF OPERATION-CONTINUOUS


A
B
C
D
E
F
G
H
I
J
K
Colorado Springs (COS)
Pueblo (PUB)
(LAA) Lamar
Garden City (GCK)
Dodge City (DDC)
Alamosa (ALS)
Tobe (TBE)
Liberal (LBL)
Taos (TAS)
Cimarron (CIM)
Gage (GAG)
(DHT) Dalhart
(BGD) Borger
Las Vegas (LVS)
Tucumcari (TCC)
Amarillo (AMA)
Sayre (SYO)
FREMONT MOA
R-2601
R-2602
LA VETA LOW MOA
LA VETA HIGH MOA
MONZA MOA
KIT CARSON MOA
VANCE 1A MOA
HOLLIS 1 MOA
P-47
V83
V81
V19 -83
V244
V10-244
V19-83
V210
V263
V216
V132
V255
V17
V10
V10-74
V10N
V74
V83-210
V484
V19
V19E
V169
V81
V263
V210-304
V17W
V234
V516
V234-304W
V304W
V304
V280
V210
V19E-263
V190
V12N
V272
V12-280
V125
V81W
V12N-304
V12S-140N
V140N-272
V140
V12
V60

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

GRUMMAN AEROSPACE CORPORATION
CIVIL FLIGHT TEST AREA
EFFECTIVE OCT 1, 1979 TO SEP 30, 1980

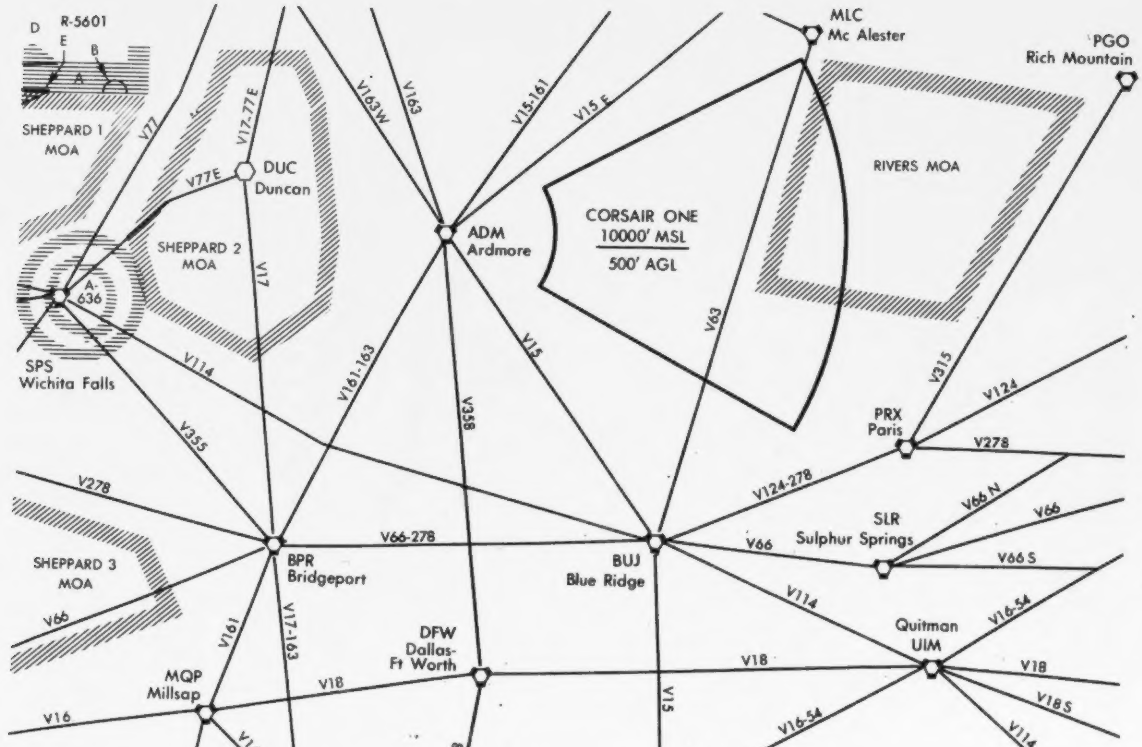

V467
V99
V229
V475
MAD
V475
V475E
Tweed-New Haven
Griswold
Groton-New London
Elizabeth
V34
V229
V308
V58
V139
BLOCK ISLAND SOUND
RHODE ISLAND SOUND
V203
CALVERTON 1 MOA
Block Island State
LONG ISLAND SOUND
V91
V16
R-5202
CALVERTON 1 MOA
CALVERTON 2 MOA
Montauk
Mattituck
East Hampton
V139-308
V46
V46
CCC
V16-46
PECONIC RIVER PLANT
Suffolk Co
HTO
Brookhaven
Spadaro
ATLANTIC OCEAN
W-105 C
V139-308
W-105 A
W-106 B

MILITARY TYPE JET AIRCRAFT WILL BE OPERATING DAILY IN VFR CONDITIONS AT ALTITUDES BELOW 10000' MSL AND AT SPEEDS NOT IN EXCESS OF 325 KNOTS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

VOUGHT CORPORATION
LOW ALTITUDE FLYING AREAS


R-5601
D
E
B
A
SHEPPARD 1 MOA
V77
V17-77E
V77E
DUC Duncan
SHEPPARD 2 MOA
V17
A-636
SPS Wichita Falls
V163W
V163
V15-161
V15 E
MLC Mc Alester
PGO Rich Mountain
ADM Ardmore
CORSAIR ONE
10000' MSL
500' AGL
RIVERS MOA
V63
V315
V124
V161-163
V358
V15
V114
V355
PRX Paris
V278
V124-278
V278
SHEPPARD 3 MOA
BPR Bridgeport
V66-278
BUJ Blue Ridge
V66
SLR Sulphur Springs
V66 N
V66
V66 S
V66
V161
V17-163
DFW Dallas-Ft Worth
V114
Quitman UIM
V16-54
MQP Millsap
V18
V18
V18
V18 S
V16
V16
V15
V16-54
V114
V358
AQN Acton
V62
V62-94
V94
V16-94
SCY Scurry
V94
GGG Gregg Co
BROWNWOOD 1 MOA
V161
V163 W
V163
V15-54
CORSAIR THREE
10000' MSL
1000' AGL
V477
V289
CORSAIR FOUR
10000' MSL
500' AGL
V17
CORSAIR TWO
10000' MSL
500' AGL
ACT Waco
V358
HOOD MOA
V477 W
V161-163 W
LZZ Lampasas
A
B
C
D
E
R-6302
V17
V15
LOA Leona
V17 E
V15 W
V477 W
V477
V212
V13

OPERATIONS – AREAS USED BY VOUGHT CORPORATION TO TEST MILITARY AIRCRAFT WHEN CEILING VFR AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION – CONTINUOUS.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

NORTH ATLANTIC MINIMUM NAVIGATION REQUIREMENTS

The concept of minimum Navigation Performance Specifications (MNPS) has been adopted on a world-wide basis by the International Civil Aviation Organization (ICAO). MNPS has the objective of ensuring both safe separation of aircraft and also to enable operators to derive maximum economic benefit from the improvement in accuracy of navigation equipment which has been demonstrated in recent years. An implicit condition of MNPS is that all operators must maintain the specified operating standards and be aware of the inherent obligations of the MNPS requirements. The MNPS concept will be implemented on a regional basis. Certain areas of the North Atlantic (NAT) region have introduced the MNPS concept. These areas are known as NAT MNPS airspace and include the following defined airspace boundaries:

(a) between FL275 and FL400;
(b) between latitudes 27°N and 67°N;
(c) in the East – the Eastern boundaries of CTAs Santa Maria Oceanic, Shanwick Oceanic and Reykjavik;
(d) in the West – the Western boundaries of CTAs Reykjavik and Gander Oceanic and New York Oceanic East of longitude 60°W.

Aircraft used to conduct flights within the volume of aircspace specified shall have navigation performance capability such that:

(a) the standard deviation of lateral track errors shall be less than 6.3 NM (11.7 Km);

Note: As a considerable simplification, the above can be interpreted as a need for aircraft to stay within 12.6 NM (23.4 Km) of track for about 95% of the time.

(b) the proportion of the total flight time spent by aircraft 30 NM (55.6 Km) or more off the cleared track shall be less than 5.3×10^{-4} (i.e., less than 1 hour in about 2000 flight hours).

(c) the proportion of the total flight time spent by aircraft between 50 and 70 NM (92.6 and 129.6 Km) off the cleared track shall be less than 13×10^{-5} (i.e., less than 1 hour in about 8000 flight hours).

Such navigation performance capability shall be verified by the State of registry or the State of the aircraft operator as appropriate. Guidance material of use to those involved in the initial achievement and continued maintenance of the navigation capability set forth above has been issued by ICAO under the title "Guidance Material related to Air Navigation in the NAT Region" and will be supplemented and updated as required and as new material becomes available.

Flights entering MNPS airspace during any portion of their flight must enter the letter "X" after the letter "S" in item 10 of the ICAO flight plan to indicate that the flight has been certified as complying with MNPS.

Aircraft incapable of meeting MNPS in MNPS airspace will be given special consideration only in a very limited number of justified cases. Such consideration will require advance coordination between the requesting operator and the appropriate ATC authorities. The decision as to whether to allow such operations and, if so, the best method of operation will be made by the ATC authorities concerned with that airspace. The decision will be based upon the nature of the operation, the navigation capability of the aircraft, and the amount of air traffic forecast for the proposed time of operation. Final routing and/or handling or any such approved special arrangements will be in a manner that will not interfere with or impose a burden upon aircraft complying with MNPS.

The FAA has published Advisory Circular 91–49 offering a means of obtaining authorization to operate within NAT/MNPS airspace for operations conducted under FAR Part 91 and FAR Part 135. Advisory Circular 120–33 contains guidance for acquiring authorization to operate in NAT/MNPS airspace under FAR's 121, 123 and 135.2. Civil operators contemplating use of Loran C in MNPS airspace are advised to follow the MNPS certification process outlined in the appropriate advisory circular.

A. MONITORING OF NAVIGATION ACCURACIES

1. The data from which MNPS was calculated was derived from previous routine and special data collections involving radar observations and monitoring of equipment performance. In order to ensure that the MNPS are being met it is necessary to monitor the tracking accuracy of aircraft using the ATC radars which cover the exits from the oceanic airspace. The frequency of occurrence of the larger track deviations will be used as a measure of compliance with the second and third parameters of the specification. In cases of individual large errors, the pilot of the aircraft concerned will normally be notified by the ATC unit observing the error. The subsequent investigation may be carried out by the operator and its State of Registry after notification by the authority providing ATC service. If there is a serious increase in the number of large errors, it may become necessary to increase separation standards until remedial action has been determined. Alternatively if, rapid corrective action cannot be achieved, it may be necessary for the State of Registry or the State of the aircraft operator to temporarily exclude offending types of aircraft, or operators, from the "MNPS airspace."

2. An operator with MNPS approval who experiences a partial loss of navigation capability prior to entry in MNPS airspace should consider the following routes:

(a) STN/BEN-60N 10W-61N 1234W-LIMA-KF
(b) BEL-57N 10W-60N 15W-61N 1630W-MIKE-KF
(c) KF-XRAY-KK-SF-FB
(d) KF-UNIFORM-63N 30W-61N 40W-OZN
(e) OZN-59N 50W-PRAWN-KL
(f) OZN-59N 50W-PORGY-HO
(g) OZN-58N 50W-LOACH-YR

3. Operations on the above routes in MNPS airspace are subject to the following conditions:

(a) A revised flight plan is filed with ATC, and
(b) An appropriate ATC clearance is obtained.

(Note: A revised oceanic clearance will be issued only after coordination between all Oceanic Area Control centers concerned.)

(c) Sufficient navigation capability remains to meet the MNPS (i.e., redundancy may be lacking).

(d) The aircraft concerned may have to accept a lower than optimum flight level during peak traffic hours if the organized track structure extends to the northern part of the NAT.

(e) Nothing in these instructions override any redudancy requirements placed upon an operator by any Operations Specifications or FAR 121, 123, or 135.2, as appropriate.

B. ROUTES BETWEEN ICELAND AND NORTHERN EUROPE:

1. After a review of the navigation facilities available between Iceland and Northern Europe it has been agreed upon by the ICAO members that aircraft equipped with normal airways navigation equipment should be capable of meeting the MNPS when operating over certain routes between Iceland and Northern Europe. The routes will be designated G3 and G11 within and outside MNPS airspace.

G3 will be established as a route between Bergen via Myggenes and Ingo to Keflavik.
G11 will be established between Sumburgh via Akraberg to Myggenes.

2. Operation on certain routes between North Eastern Canada and Ireland or Northern United Kingdom via Iceland:

(a) It is anticipated that a continued requirement may exist for selected routes between N.E. Canada and Iceland and between Iceland and points in Ireland or the Northern U.K. which could be used by aircraft not

normally used in N. Atlantic operations or by aircraft on delivery. The routes listed in paragraph A-2 above should be used for such operations. Aircraft operating along these routes in MNPS airspace which are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

—Loran C

are considered capable of meeting MNPS while operating along these routes.

(b) The above-listed long range navigation equipment need not be permanent aircraft equipment.

C. ROUTES BETWEEN SPECIFIC POINTS IN PORTUGUESE TERRITORY:

1. Aircraft that are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

are considered capable of meeting MNPS while operating along the following routes:

(a) PST-35N 20W-FOXTROT TWO-VSM
(b) CP-3820N 15W-38N 20W-ECHO/DELTA-VSM/MGL
(c) CP-3853N 15W-39N 20W-BRAVO-LM

NORTH ATLANTIC STANDARDIZED AIR/GROUND MEESAGES

1. *General*

1.1 In order to make an evaluation it is proposed that within the North Atlantic (NAT) Region all ATS Air/Ground messages should be categorized under one of the following headings:

(a) Position report
(b) Request Clearance
(c) Revised estimate
(d) Miscellaneous air/ground message

The purpose of the evaluation is to determine whether pilot/controller response times can be improved.

1.2 In order to enable the ground stations to process messages in the shortest possible time, it is requested that pilots should observe the following rules:

1) use the correct type of message applicable to the data transmitted;
2) state the message type on the contact call to the ground station or at the start of the message (except if it is a miscellaneous message);
3) adhere strictly to the sequence of information for the type of message; and
4) all times on each of the messages should be expressed in hours and minutes.

2. *Period of evaluation and scope of application*

2.1 Operational evaluation using the new ATS message types will commence *at 0001 GMT on 22 March 1979*. During the initial period of seven months, data will be collected, analysed and further action taken as necessary. The procedures detailed for the transmission of air/ground messages will apply to transaltantic aircraft operating within or through the Gander, New York, Reykjavik, Santa Maria and Shanwick CTAs whether using HF or G/P VHF.

2.2 It will especially assist the communicators operating the Clearance Delivery Frequencies at Shanwick if westbound oceanic clearance requests are also transmitted in the format and data content specified in para 3.1.2 during the evaluation period.

3. *Description of ATS Message Types*

3.1 It should be appreciated that messages that have no ATS connection, e.g. SELCAL checks, form no part of this evaluation. For the purpose of the evaluation aircraft should transmit air/ground messages using standard RTF phraseology in accordance with the following:

3.1.1 *POSITION*

To be used for routine position reports.

CONTENT OF POSITION REPORT MESSAGE AND DATA SEQUENCE

(a) "POSITION"
(b) Flight identification
(c) Present position
(d) Time over present position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route
(g) Estimate for next position (hours and minutes)
(h) Any further information, e.g. AIREP data or Company message

3.1.2 *REQUEST CLEARANCE*

1) To be used in conjunction with a routine position report to obtain a change of Mach No., flight level or route and to obtain *Westbound* Oceanic clearance prior to entering Reykjavik, Santa Maria or Shanwick CTAs.

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Present or last reported position
(d) Time over present or last reported position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route or oceanic entry point
(g) Estimate for next position or oceanic entry point (hours and minutes)
(h) Requested Mach No (if applicable)
(i) Requested flight level (if applicable)
(j) Requested route (if applicable)
(k) Further information or clarifying remarks

NOTE: the message implies that when a reclearance requested in respect of any single item in (h), (i) or (j) or any combination of these items it is to take effect as soon as possible unless otherwise stated in (k).

2) To be used to request a change of flight level or Mach No. *when a position report message is not appropriate.*

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Requested flight level and/or Mach No.
(d) Further information of clarifying remarks

3.1.3 *REVISED ESTIMATE*

To be used to update estimate for next position.

CONTENT OF REVISED ESTIMATE MESSAGE AND DATA SEQUENCES

(a) "REVISED ESTIMATE"
(b) Flight identification
(c) Next position on assigned route
(d) Revised estimate for next position (hours and minutes)
(e) Any further information

3.1.4 *MISCELLANEOUS*

To be used to pass information or make a request in plain language that does not conform with the three other formats. No message type designator is required to be stated by the pilot since message type will be inserted by the ground station.

CONTENT OF MISCELLANEOUS MESSAGE AND DATA SEQUENCE

(a)Flight identification
(b) General information or request in plain language—form free.

NORTH AMERICAN ROUTES FOR NORTH ATLANTIC TRAFFIC (NAR)

GENERAL

(a) The NAR system has been developed to achieve the following objectives: (1) to organize the fluctuating and reversing traffic flows in the most efficient possible manner, consistent with the needs of aircraft operators and air traffic services; (2) to expedite flight planning; (3) to reduce the complexity of route clearances and thereby minimize the confusion and error potential inherent in lengthy transmissions and readbacks; and (4) to minimize the time spent by pilots and controllers in the route clearance delivery function.

(b) The NAR system comprises a series of pre-planned routes over existing airway/route systems from/to the following coastal fixes serving the North Atlantic traffic. Most of the NAR routes are divided into two portions.

(1) Common Portion – That portion of the route between the coastal fix and a specified Inland Navigation Facility. Example – Route NA108 common portion is "St. John's (Nfld) HL575 J575 Boston."

(2) Non-Common Portion – That portion of the route between the specified Inland Navigation Facility and the system airport being used by the flight. Example – Route NA108 non-common portion may be "Boston Norwich Saybrook Star Kennedy" or it may be "Boston Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143S Westminister Frederick 082 Radial Frederick Dulles," depending on whether the system airport being used by the flight is Kennedy or Dulles.

(c) These routes are numbered and prefixed by the abbreviation "NA." Odd route numbers have eastbound application only and even route numbers have westbound application only.

(d) Aircraft are considered to be within the NAR system when they join the system at an identified coastal fix; they join the system on departure from one of the identified airports; or when they join the system at an identified Inland Navigation Facility.

(e) Since a primary function of the NAR system is to complement the North Atlantic Organized Track System (NAT/OTS), a limited number of NAR routes appropriate for the coastal fixes serving the OTS and domestic traffic organization are included in the daily NAT/OTS messages published by the Gander and Shanwick OAC's.

(f) All aircraft that enter/exit the North Atlantic via the identified coastal fixes should use the NAR system if their domestic route requirements are compatible with the system. However, when necessary, an operator may flight plan a domestic route other than the one included in the current NAT/OTS message. Similarly, due to traffic conditions, Air Traffic Control may clear an aircraft via a route other than that flight planned.

FLIGHT PLANNING

(a) Route Description

(1) When the route of flight within the NAR system can be described by a single NAR designator, the route should be indicated on the flight plan using the appropriate designator.

(2) In all other cases, a full description of the route is required.

(3) Aircraft flight planning into or from either Goose or Gander Airports, Canada, may file the NAR designator as the route of flight.

ROUTE CLEARANCES

(a) For aircraft operating within the NAR system, the ATC clearance and pilot readback will be as follows:

> (flight identification) IS CLEARED TO THE (destination) AIRPORT VIA NORTH AMERICAN ROUTE (number).

(b) For aircraft operating within the NAR system either to or/from an airport not included in a non-common route, the ATC clearance and pilot readback may be as follows:

> ATC CLEARS (flight identification) TO (overseas destination) VIA J545 HL545 LONDON HL586 STIRLING HL555 BAIE COMEAU NORTH AMERICAN ROUTE 251 GOOSE FLIGHT PLANNED ROUTE...

> (flight identification) IS CLEARED TO THE CLEVELAND AIRPORT VIA NORTH AMERICAN ROUTE 246 CHARLEVOIX HL555 QUEBEC HL546 KLEINBURG HL558 LONDON HL545 J545 CLEVELAND...

(c) Westbound aircraft operating within the North Atlantic Organized Track System and destined for one of the selected North American Terminals served by the NAR System, having experienced communications failure prior to receipt of domestic route clearance should consider as its cleared route of flight the NAR associated with its cleared oceanic track as published in the current NAT/OTS message.

(d) Aircraft not operating within the NAR system will be cleared via a fully detailed route.

DOCUMENTATION

(a) It is expected that the following NAR documentation will be carried on the flight deck of each aircraft operating within the NAR system: (1) a description of the current NAR and (2) the information contained in the current NAT/OTS message.

(b) The official NAR route descriptions are contained in both Canadian Ministry of Transport (MOT) and U.S. Federal Aviation Administration (FAA) publications. The official FAA listing appears in both the INTERNATIONAL FLIGHT INFORMATION MANUAL, issued annually and amended quarterly, and in the publication GRAPHIC NOTICES AND SUPPLEMENTAL DATA (U.S. AIP section RAC-9), issued quarterly. Both publications contain identical listings. Changes to the NAR routes are advertised in the bi-weekly publication INTERNATIONAL NOTICES TO AIRMEN and the bi-weekly publication NOTICES TO AIRMEN (CLASS II).

(c) The following listing divides the NAR Route descriptions into two sections according to the direction of flight (Eastbound or Westbound). Each section is subdivided according to the route portion (common or non-common). The common portion describes the NAR route between the Coastal Fix and the Inland Navigational Facility. The non-common portion describes the route between the NAR route system airport being used and the Inland Navigational Facility.

SECTION I – NAR EASTBOUND ROUTES

(A) COMMON PORTION (EASTBOUND)

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA1	Winny	R56	Slatn
NA3	Nantucket	J62	Poggo
NA21	Nantucket	Control 1146 Whale Bluse	Sable Island
NA23	Watertown	J595 HL595 Saint John (N.B.) HL506	Sable Island
NA25	Beauce	HL509 J509 Patta Millinocket J506 FL506	Sable Island
NA41	Nantucket	J585 HL585 Yarmouth HL575 Halifax Canso	Color
NA43	Watertown	J595 HL595 Saint John (N.B.) HL506 Halifax Canso	Color
NA45	Beauce	HL509 J509 Patta Millinocket J506 HL506 Halifax Canso	Color
NA47	Canal	J575 HL575 Halifax Canso	Color
NA61	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509	Sydney
NA63	Beauce	HL509 J509 HL509	Sydney
NA65	Nantucket	J585 HL585 Yarmouth HL575	Sydney
NA67	Canal	J575 HL575	Sydney
NA81	Nantucket	J585 HL585 Yarmouth HL575	St. John's (Nfld)
NA83	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509 Sydney HL575	St. John's (Nfld)
NA85	Watertown	J595 HL595 St. John (N.B.) HL573	St. John's (Nfld)
NA87	Beauce	HL509 J509 HL509 Sydney HL575	St. John's (Nfld)
NA89	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573	St. John's (Nfld)
NA91	Canal	J575 HL575	St. John's (Nfld)
NA101	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577 Ramea	Vysta
NA103	Kennebunk	J573 HL573 Ramea	Vvsta
NA105	Hyannis	J79 Seaer J573 HL573 Ramea	Vysta
NA107	Watertown	J595, HL595 Saint John (N.B.) HL573 Ramea	Vysta
NA109	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573 Ramea	Vvsta

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA111	Canal	J575 HL575 Sydney HL577 Ramea	Vysta
NA121	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577	Gander
NA123	Kennebunk	J573 HL573 Channel Head HL500	Gander
NA125	Hyannis	J79 Seaer J573 HL573 Channel Head HL500	Gander
NA127	Watertown	J595 HL595 Saint John (N.B.) HL573 Channel Head HL500	Gander
NA129	Beauce	HL509 J509 HL509 Moncton HL500	Gander
NA131	Canal	J575 HL575 Sydney HL577	Gander
NA141	Kennebunk	J581 HL581 Stephenville HL579	Springdale
NA143	Kennebunk	J573 HL573 Channel Head	Springdale
NA145	Hyannis	J79 Bangor J581 HL581 Stephenville HL579	Springdale
NA147	Hyannis	J79 Seaer J573 HL573 Channel Head	Springdale
NA151	Beauce	HL509 J509 HL509 Cheps HL581 Stephenville HL579	Springdale
NA161	Kennebunk	J581 HL581 Conay	Dotty
NA163	Hyannis	J79 Bangor J581 HL581 Conay	Dotty
NA165	Beauce	HL509 J509 HL509 Cheps HL581 Conay	Dotty
NA167	Watertown	J595 Bangor J581 HL581 Conay	Dotty
NA181	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA183	Kennebunk	J55 Presque Isle J564 HL564 Charlo HL549	Natasquan
NA185	Hyannis	J79 Bangor J29 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA187	Riviere du Loup	HL560 Mont Joli HL553	Natashquan
NA201	Kennebunk	J581 HL581 Conay HL571	St. Anthony
NA203	Hyannis	J79 Bangor J581 HL581 Conay HL571	St. Anthony
NA207	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA209	Beauce	HL509 J509 HL509 Cheps HL581 Conay HL571	St. Anthony
NA211	Beauce	HL564 J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA213	Riviere du Loup	HL589 Heath Point HL571	St. Anthony
NA215	Riviere du Loup	HL560 Mont Joli HL553	St. Anthony
NA221	Kennebunk	J55 Presque Isle J564 HL564	Port Menier
NA223	Hyannis	J79 Bangor J29 Presque Isle J564 HL564	Port Menier
NA225	Cambridge	J49 Friar J55 Presque Isle J564 HL564	Port Menier
NA227	Riviere du Loup	HL560 Mont Joli HL553	Port Menier
NA241	Kennebunk	J55 Presque Isle J582 HL582 Sept Illes HL560	Goose
NA243	Kennebunk	J55 Presque Isle Lake Eon HL560	Goose
NA245	Hyannis	J79 Bangor J29 Presque Isle J582 HL582 Sept Iles HL560	Goose
NA247	Hyannis	J79 Bangor J29 Presque Isle Lake Eon HL560	Goose

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA249	Riviere du Loup	HL560	Goose
NA251	Baie Comeau	HL555 Lake Eon HL560	Goose
NA253	Cambridge	Sherbrook HL563 Riviere du Loup HL560	Goose
NA261	Kennebunk	J55 Presque Isle J582 HL582	Waco
NA263	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Waco
NA265	Cambridge	Sherbrooke HL563 Baie Comeau HL586	Waco
NA267	Baie Comeau	HL586	Waco
NA281	Kennebunk	J55 Presque Isle J582 HL582	Hopedale
NA283	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Hopedale
NA285	Cambridge	Sherbrooke HL563	Hopedale
NA287	Baie Comeau	HL563	Hopedale
NA289	Peck	J551 HL551	Hopedale

(B) NON-COMMON PORTION (EASTBOUND)

VIA BEAUCE

From	Non-Common Portions to Beauce
Montreal/Mirabel	V363 HL565
Montreal/Dorval	V352 HL509
Ottawa	V300 Valie Cote St. Luc
Toronto	V98 Stirling HL555 Montreal HL509
Detroit	Aylmer Toronto Stirling HL555 Montreal HL509
Chicago	London HL586 Stirling HL555 Montreal HL509

VIA BAIE COMEAU

From	Non-Common Portions to Baie Comeau
Montreal/Mirabel	V318 HL553 Charlevoix HL555
Montreal/Dorval	V352 V98 HL586
Ottawa	V360 V318 HL553 Charlevoix HL555
Toronto	V98 Stirling HL555
Detroit	Aylmer Toronto Stirling HL555
Chicago	London HL586 Stirling HL555

VIA CAMBRIDGE

There is no non-common portion to Cambridge.

VIA CANAL

There is no non-common portion to Canal.

VIA HYANNIS

There is no non-common portion to Hyannis.

VIA KENNEBUNK

There is no non-common portion to Kennebunk.

VIA NANTUCKET

From	Non-Common Portions to Nantucket
Kennedy	Sardi 7 Departure Direct

VIA PECK

From	Non-Common Portions to Peck
Chicago	Direct

VIA RIVIERE DU LOUP

From	Non-Common Portions to Riviere du Loup
Montreal/Mirabel	V318 HL553 Charlevoix
Montreal/Dorval	V352 V98 HL586 Quebec HL560
Toronto	V98 Stirling HL555 Quebec HL560
Ottawa	V360 V318 HL553 Charlevoix
Detroit	Aylmer Toronto Stirling HL555 Quebec HL560
Chicago	London HL586 Stirling HL555 Quebec HL560

VIA WATERTOWN

From	Non-Common Portions to Watertown
Chicago	London HL595 J595
Detroit	Aylmer Toronto
Toronto	V98 281 Radial Watertown

VIA WINNY

From	Non-Common Portions to Winny
Kennedy	Winny 2 Departure Direct

SECTION 2 - NAR WESTBOUND ROUTES

(A) COMMON PORTION (WESTBOUND)

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA2	Slatn	J97	Nantucket
NA4	Poggo	Direct	Hyannis
NA20	Sable Island	Bluse Whale Control 1146	Herin
NA22	Sable Island	HL506 Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA40	Color	Canso Halifax HL575 J575	Boston
NA42	Color	Canso Halifax HL575	Yarmouth
NA44	Color	Canso Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA60	Sydney	HL575	Yarmouth
NA62	Sydney	HL575 J575	Boston
NA464	Sydney	HL509 Moncton HL500 J500 HL500	Sherbrooke
NA80	St. John's (Nfld.)	HL575	Yarmouth
NA82	St. John's (Nfld.)	HL575 J575	Boston
NA84	St. John's (Nfld.)	HL575 Sydney HL509 Moncton HL500 J500 HL500	Sherbrook
NA100	Vysta	Ramea HL577 Sydney HL575	Yarmouth
NA102	Vysta	Ramea HL577 Sydney HL575 J575	Boston
NA104	Vysta	Ramea HL573 J573	Kennebunk
NA106	Vysta	Ramea HL573 Channel Head HL500 J500 HL500	Sherbrooke
NA120	Gander	HL577 Sydney HL575	Yarmouth
NA122	Gander	HL577 Sydney HL575 J575	Boston
NA124	Gander	HL500 Channel Head HL573 J573	Kennebunk
NA126	Gander	HL500 J500 HL500	Sherbrooke
NA140	Springdale	HL579 Stephenville HL581 J581	Kennebunk
NA142	Springdale	HL579 Stephenville HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA160	Dotty	Conay HL581 J581	Kennebunk
NA162	Dotty	Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA180	Natashquan	HL549 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA182	Natashquan	HL549 Charlo HL589	Riviere du Loup
NA184	Natashquan	HL553	Charlevoix
NA200	St. Anthony	HL571 Conay HL581 J581	Kennebunk
NA202	St. Anthony	HL571 Heath Point HL589 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA204	St. Anthony	HL553	Charlevoix
NA206	St. Anthony	HL571 Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA208	St. Anthony	HL571 Heath Point HL589	Riviere du Loup
NA210	St. Anthony	HL553 Mont Joli HL560	Riviere du Loup
NA220	Port Menier	HL564 J564 Presque Isle J55	Kennebunk
NA222	Port Menier	HL553 Mont Joli HL560	Riviere du Loup
NA224	Port Menier	HL553	Charlevoix
NA240	Goose	HL560 Lake Eon Presque Isle J55	Kennebunk
NA242	Goose	HL560 Sept-Iles HL582 J582 Presque Isle J55	Kennebunk
NA244	Goose	HL560 Riviere du Loup HL563 J563	Albany
NA246	Goose	HL560 Sept Iles HL555	Charlevoix

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA260	Waco	HL582 J582 Presque Isle J55	Kennebunk
NA262	Waco	HL586 Baie Comeau HL563 J563	Albany
NA264	Waco	HL586	Charlevoix
NA280	Hopedale	HL551 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA282	Hopedale	HL551 Wabush HL561 J561 Presque Isle J55	Kennebunk
NA284	Hopedale	HL551 Wabush HL561 Baie Comeau HL563 J563	Albany
NA286	Hopedale	HL551 Chibougamau HL570 J570	Albany
NA288	Hopedale	HL551 Wabush HL561 Baie Comeau HL555	Charlevoix
NA290	Hopedale	HL551 J551 Peck J94 Pullman V84 Pappi	Chicago
NA292	Hopedale	HL551 Chibougamau HL545	Midland
NA294	Hopedale	HL551 Chibougamau HL570	Montreal/Mirabel /Dorval
NA302	Schefferville	HL561 J561 Presque Isle J55	Kennebunk
NA304	Schefferville	HL561 Baie Comeau HL563 J563	Albany
NA306	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570 J570	Albany
NA308	Schefferville	HL561 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA310	Schefferville	HL548 Nitchequon HL545	Midland
NA312	Schefferville	HL561 Baie Comeau HL555	Charlevoix
NA314	Schefferville	HL548 J548 Pullman V84 Pappi	Chicago
NA316	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570	Montreal/Mirabel /Dorval

(B) NON-COMMON PORTION (WESTBOUND)

VIA ALBANY

Non-Common Portions from Albany

Albany	Kingston Kingston Arrival	Kennedy
Albany	Pawling Calverton Calverton 193 Radial J121 Coyle 100 Radial Coyle	McGuire
Albany	J49 Hancock V153 Lake Henry V149 Mazie	Philadelphia
Albany	Pawling Calverton Calverton 193 Radial J121 Sea Isle	Dover
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA BOSTON

Non-Common Portions from Boston

Boston	Norwich Saybrook 3 Arrival	Kennedy
Boston	J55 Providence J121 Coyle 100 Radial Coyle	McGuire
Boston	J55 Providence J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Boston	J55 Providence J121 Sea Isle	Dover
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA CHARLEVOIX

Non-Common Portions from Charlevoix

Charlevoix	HL555 Quebec HL546 St. Felix de Valois V316	Montreal/Mirabel /Dorval
Charlevoix	HL553 V360	Ottawa
Charlevoix	HL553 Midland HL587 V34 Kleinburg	Toronto
Charlevois	HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Charlevoix	HL553 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA CHICAGO

There is no non-common portion from Chicago.

VIA HERIN

Non-Common Portions from Herin

Herin	Control 1142 Hyannis 014 Radial Scupp	Boston
Herin	J174 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Herin	J174 J121 Coyle 100 Radial Coyle	McGuire
Herin	J174 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Herin	J174 J121 Sea Isle	Dover
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA HYANNIS

Non-Common Portions from Hyannis

Hyannis	Hyannis 014 Radial Scupp	Boston
Hyannis	Hyannis Transition Suffolk 3 Arrival	Kennedy
Hyannis	J150 J121 Coyle 100 Radial Coyle	McGuire
Hyannis	J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Hyannis	J150 J121 Sea Isle	Dover
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA KENNEBUNK

Non-Common Portions from Kennebunk

Kennebunk	Kennebunk 178 Radial Scupp	Boston
Kennebunk	Kennebunk Transition Saybrook 3 Arrival	Kennedy
Kennebunk	J55 J121 Coyle 100 Radial Coyle	McGuire
Kennebunk	J55 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Kennebunk	J55 J121 Sea Isle	Dover
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA MIDLAND

Non-Common Portions from Midland

Midland	HL587 V34 Kleinburg	Toronto
Midland	HL545 London HL586 V98 Desdn V2 Rhyme	Detroit

VIA MONTREAL/MIRABEL/DORVAL

There is no non-common portion from Montreal/Mirabel/Dorval.

VIA NANTUCKET

Non-Common Portions from Nantucket

Nantucket	Nantucket 308 Radial J150 Hampton Suffolk 3 Arrival	Kennedy

VIA RIVIERE DU LOUP

Non-Common Portions from Riviere du Loup

Riviere du Loup	HL560 Quebec HL546 St. Felix de Valois V316	Montreal/Mirabel /Dorval
Riviere du Loup	Charlevoix H553 V360	Ottawa
Riviere du Loup	Charlevoix HL553 Midland HL587 V34 Kleinburg	Toronto
Riviere du Loup	Charlevoix HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Riviere du Loup	Charlevoix HL553 Ottawa HL546 J546 Peck J94 PUllman V84 Pappi	Chicago

VIA SHERBROOKE

Non-Common Portions from Sherbrooke

Sherbrooke	HL500 V300 St. Jean (Que)	Montreal/Mirabel /Dorval
Sherbrooke	HL500 St. Jean (Que) V487 Montreal V316	Ottawa
Sherbrooke	HL500 Ottawa HL553 Midland HL587 V34 Kleinburg	Toronto
Sherbrooke	HL500 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Sherbrooke	HL500 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA YARMOUTH

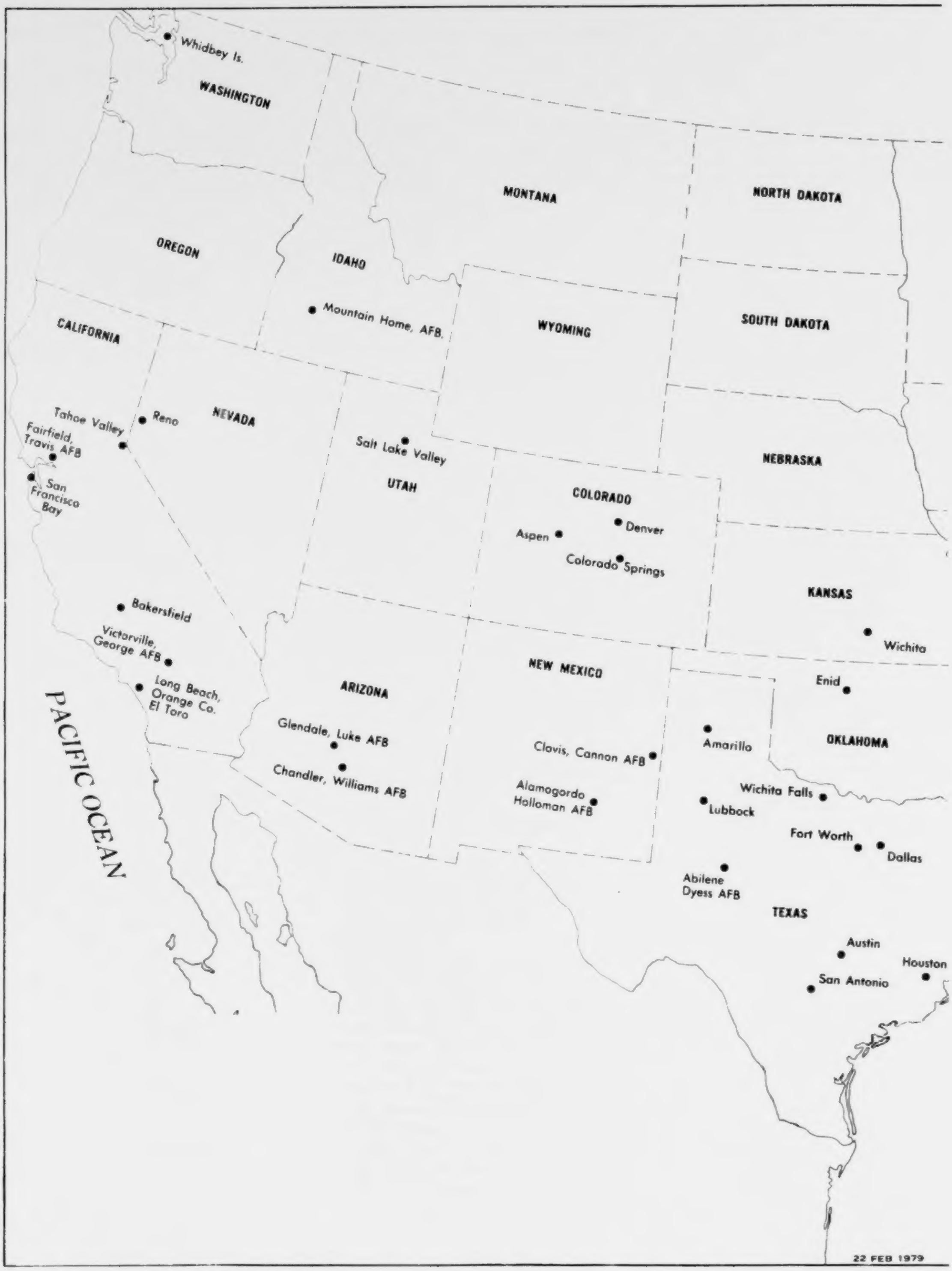
Non-Common Portions from Yarmouth

Yarmouth	HL575 J575 Scupp	Boston
Yarmouth	HL585 J585 J150 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial Coyle	McGuire
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Yarmouth	HL585 J585 J150 J121 Sea Isle	Dover
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

TERMINAL AREA GRAPHIC NOTICES

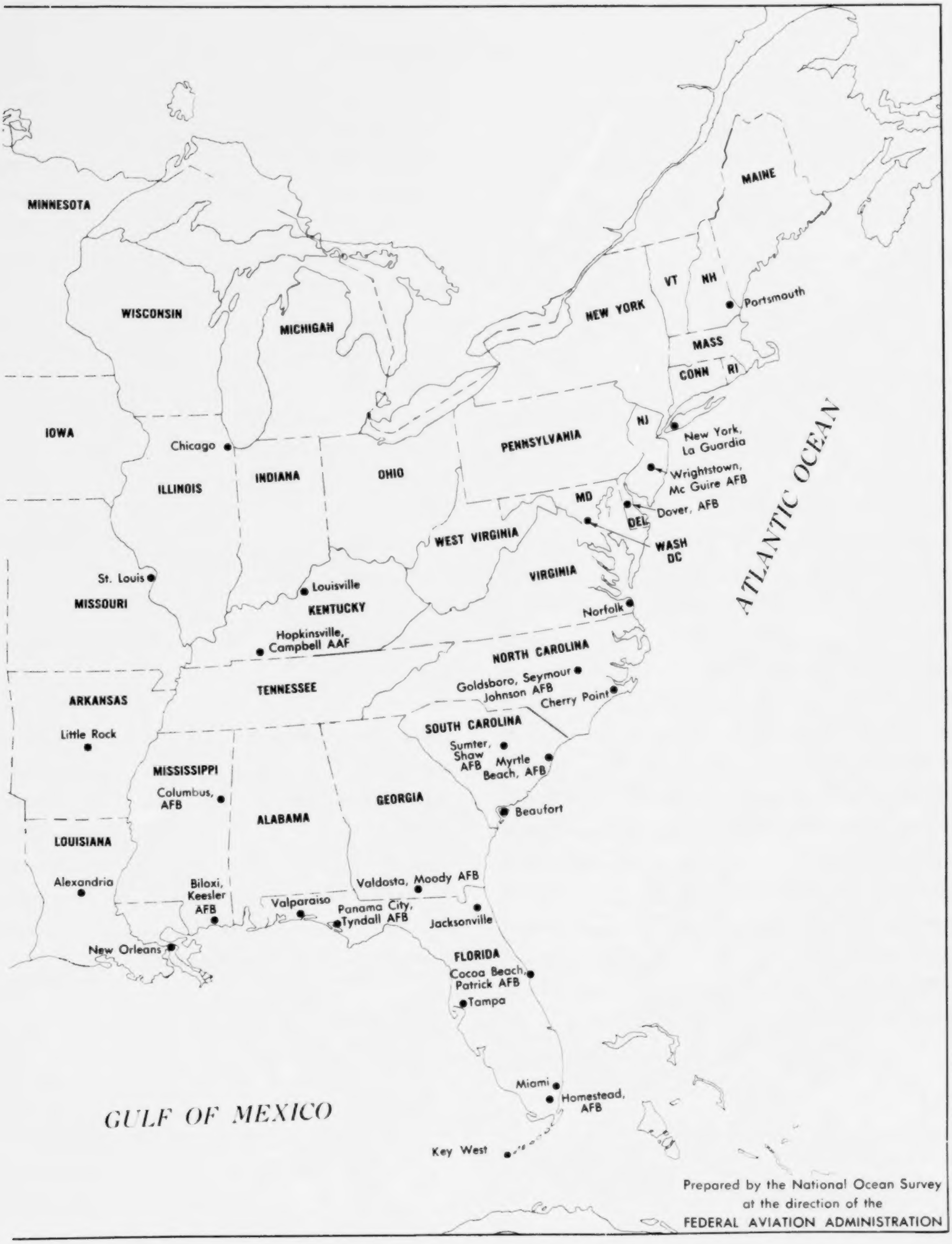
Under this heading, on the following pages, will be found a number of graphics showing areas of concentrated traffic for the information and guidance of pilots operating under VFR in the terminal areas depicted. The graphics are intended to assist VFR pilots planning flight in the areas and in many instances recommended or suggested VFR routes/corridors are shown. The information presented is in no way to be considered mandatory or "legal": it is advisory only.

INDEX OF TERMINAL AREA GRAPHIC NOTICES


Whidbey Is.
WASHINGTON
MONTANA
NORTH DAKOTA
OREGON
IDAHO
Mountain Home, AFB.
WYOMING
SOUTH DAKOTA
CALIFORNIA
Tahoe Valley
Reno
NEVADA
Fairfield, Travis AFB
San Francisco Bay
Salt Lake Valley
UTAH
NEBRASKA
COLORADO
Denver
Aspen
Colorado Springs
KANSAS
Bakersfield
Wichita
Victorville, George AFB
Long Beach, Orange Co. El Toro
NEW MEXICO
Enid
ARIZONA
OKLAHOMA
PACIFIC OCEAN
Glendale, Luke AFB
Chandler, Williams AFB
Clovis, Cannon AFB
Amarillo
Alamogordo Holloman AFB
Wichita Falls
Lubbock
Fort Worth
Dallas
Abilene Dyess AFB
TEXAS
Austin
Houston
San Antonio

22 FEB 1979

INDEX OF TERMINAL AREA GRAPHIC NOTICES


MINNESOTA
WISCONSIN
MICHIGAN
NEW YORK
VT
NH
MAINE
Portsmouth
MASS
CONN
RI
NJ
New York, La Guardia
Wrightstown, Mc Guire AFB
Dover, AFB
DEL
MD
WASH DC
ATLANTIC OCEAN
IOWA
Chicago
ILLINOIS
INDIANA
OHIO
PENNSYLVANIA
WEST VIRGINIA
VIRGINIA
Norfolk
St. Louis
MISSOURI
Louisville
KENTUCKY
Hopkinsville, Campbell AAF
NORTH CAROLINA
Goldsboro, Seymour Johnson AFB
Cherry Point
TENNESSEE
ARKANSAS
Little Rock
SOUTH CAROLINA
Sumter, Shaw AFB
Myrtle Beach, AFB
MISSISSIPPI
Columbus, AFB
ALABAMA
GEORGIA
Beaufort
LOUISIANA
Alexandria
Biloxi, Keesler AFB
Valparaiso
Panama City, Tyndall AFB
Valdosta, Moody AFB
Jacksonville
New Orleans
FLORIDA
Cocoa Beach, Patrick AFB
Tampa
Miami
Homestead, AFB
Key West
GULF OF MEXICO

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

NEW GRAPHIC-★
MAJOR REVISION-†

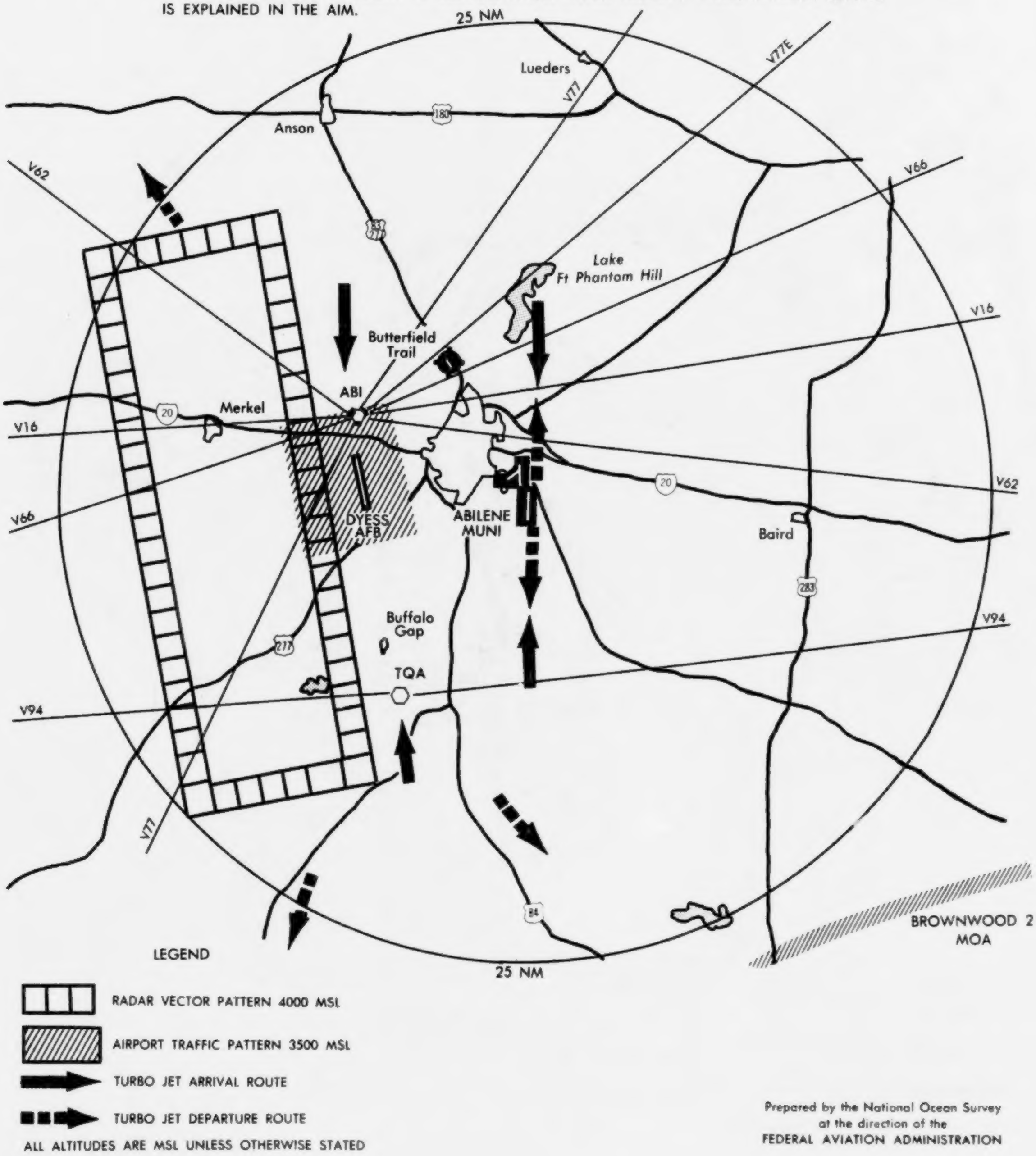
TABLE OF CONTENTS

Abilene, Dyess AFB, Tx. Term-5
Alamogordo, Holloman AFB, N.M. Term-6
Alexandria, La. Term-7
Amarillo, Tx. Term-8
Aspen, Co. Term-9
Austin, Tx. Term-10
Bakersfield, Ca. .... Term 11
Beaufort, S.C. Term-12
Biloxi, Keesler AFB, Ms. Term-13
Chandler, Williams AFB, Az. Term-14
Cherry Point, N.C. Term-15
Chicago, Il. Term-16
Clovis, Cannon AFB, N.M. Term-17
Cocoa Beach, Patrick AFB. Fl. Term-18
Colorado Springs, Co. Term-19
Columbus, AFB, Ms. Term-20
Dallas, Tx. Term-21
Denver, Co. Term-22
Dover, AFB, De. Term-23
Enid, Ok. .... †Term-24
Fairfield, Travis AFB, Ca. Term-25
Fort Worth, Tx. Term-26
Glendale, Luke AFB, Az. Term-27
Goldsboro, Seymour Johnson AFB, N.C. Term-28
Homestead AFB, Fl. Term-29
Hopkinsville, Campbell AAF, Ky. Term-30
Houston, Tx. Term-31
Jacksonville, Fl. Term-32
Key West, Fl. Term-33
Little Rock, Ar. Term-34
Long Beach, Orange Co. El Toro, Ca. Term-35
Louisville, Ky. Term-36
Lubbock, Tx. Term-37
Miami, Fl. .... Term 38
Mountain Home, AFB, Id. Term-39
Myrtle Beach, AFB, S.C. Term-40
New Orleans, La. Term-41
New York, La Guardia, N.Y. Term-42
Norfolk, Va. Term-43
Panama City, Tyndall AFB, Fl. Term-44
Portsmouth, Pease AFB, N.H. Term-45
Reno, Nv. Term-46
St. Louis, Mo. Term-47
Salt Lake Valley, Ut. Term-48
San Antonio, Tx. Term-49
San Francisco Bay, Ca. Term-50
Sumter, Shaw AFB, S.C. Term-51
Tahoe Valley, Ca. Term-52
Tampa, Fl. Term-53
Valdosta, Moody AFB, Ga. Term-54
Valparaiso, Fl. Term-55
Victorville, George AFB, Ca. Term-56
Whidbey Is., Wa. Term-57
Wichita, Ks. .... ★ Term-58
Wichita Falls, Tx. Term-59
Wrightstown, McGuire AFB, N.J. Term-60
Washington Nat'l Arpt. Noise Abatement Procedure ..... †Term-61

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ABILENE-DYESS, TEXAS

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. AIRCRAFT LANDING ABILENE MUNICIPAL ARE ENCOURAGED TO CONTACT ABILENE APPROACH CONTROL ON 121.3 MHz APPROXIMATELY 25 MILES OUT FOR STAGE II SERVICES. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


25 NM
Lueders
V77E
V77
180
Anson
V62
V66
83
277
Lake
Ft Phantom Hill
V16
Butterfield
Trail
ABI
20
Merkel
V16
20
V62
V66
DYESS
AFB
ABILENE
MUNI
Baird
283
Buffalo
Gap
V94
277
TQA
V94
V77
84
BROWNWOOD 2
MOA
25 NM
LEGEND
RADAR VECTOR PATTERN 4000 MSL
AIRPORT TRAFFIC PATTERN 3500 MSL
TURBO JET ARRIVAL ROUTE
TURBO JET DEPARTURE ROUTE
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

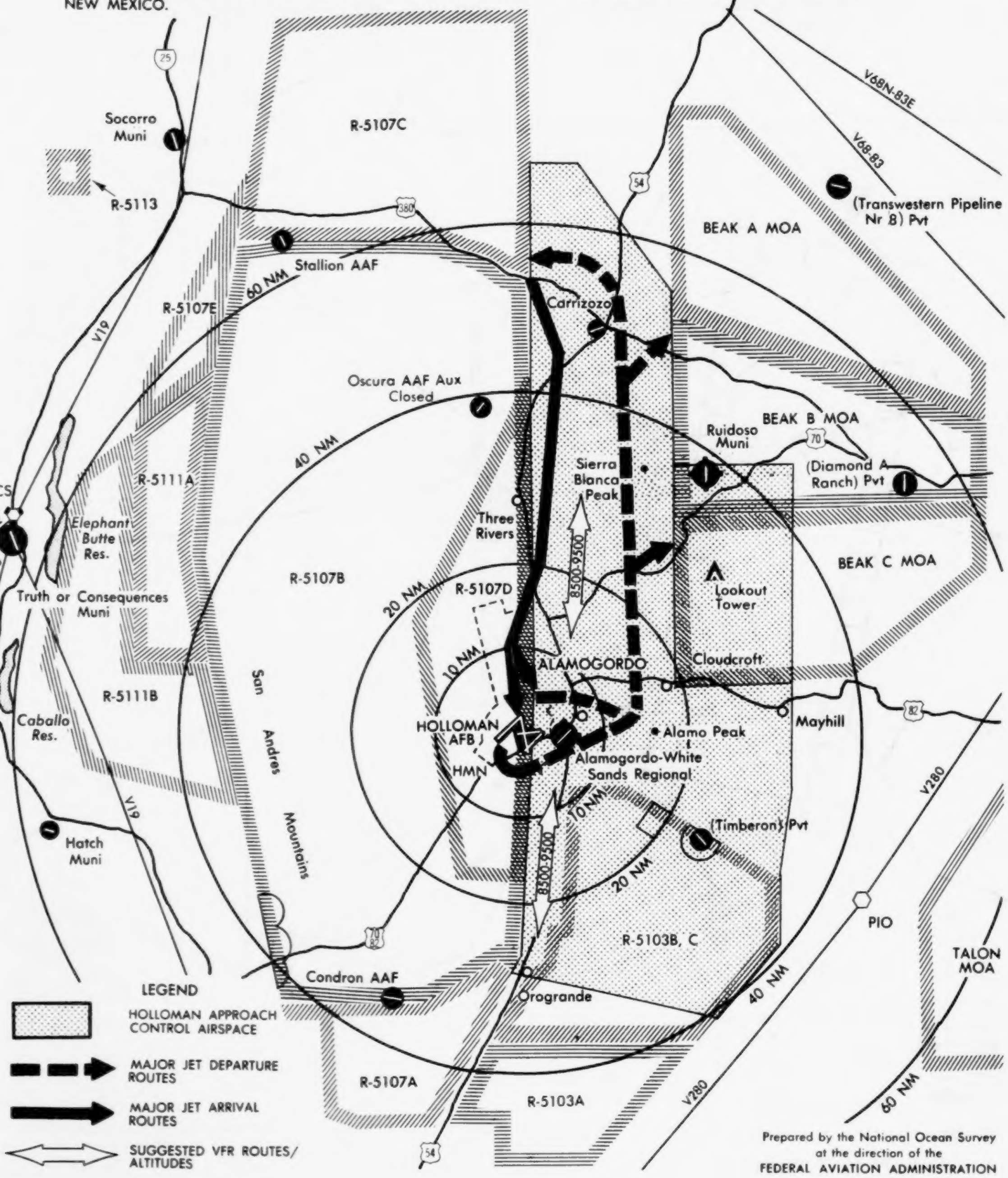
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALAMOGORDO, HOLLOMAN AFB, NEW MEXICO

THIS NOTICE DEPICTS THE FLOW OF AIR TRAFFIC WITHIN THE HOLLOMAN AREA. THE PURPOSE OF THE CHART IS TO ASSIST PILOTS OPERATING VFR IN PLANNING THEIR ROUTE INTO AND THROUGH THE AREA. VFR AIRCRAFT SHOULD CONTACT HOLLOMAN APPROACH CONTROL ON 120.6 OR 324.3 FOR STAGE II SERVICE. CAUTION: HIGH SPEED JET AIRCRAFT CROSSING HIGHWAY 54, EAST TO WEST AT OR BELOW 2000 AGL IN THE VICINITY OF THREE RIVERS, NEW MEXICO.

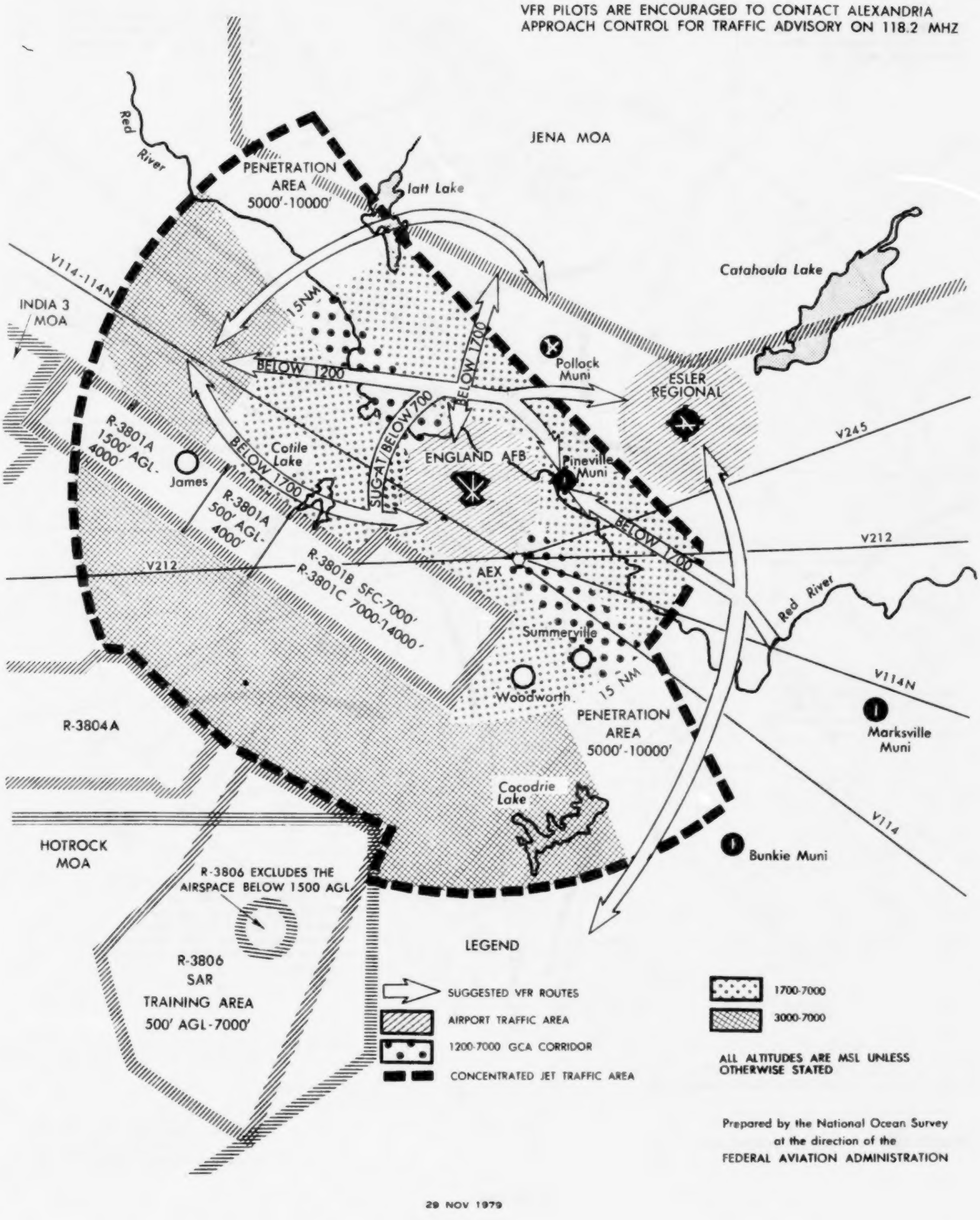

25
Socorro Muni
R-5113
380
R-5107C
54
V68N-83E
V68-83
(Transwestern Pipeline Nr 8) Pvt
BEAK A MOA
Stallion AAF
60 NM
R-5107E
Carrizozo
V19
Oscura AAF Aux Closed
BEAK B MOA
Ruidoso Muni
70
40 NM
R-5111A
Sierra Blanca Peak
(Diamond A Ranch) Pvt
TCS
V202
Elephant Butte Res.
Three Rivers
BEAK C MOA
V110
8500-9500
Lookout Tower
R-5107B
Truth or Consequences Muni
20 NM
R-5107D
San Andres Mountains
10 NM
ALAMOGORDO
Cloudcroft
R-5111B
HOLLOMAN AFB
Mayhill
82
Caballo Res.
Alamo Peak
HMN
Alamogordo-White Sands Regional
V280
V19
10 NM
(Timberon) Pvt
Hatch Muni
8500-9500
20 NM
PIO
70
R-5103B, C
TALON MOA
Condron AAF
40 NM
LEGEND
Orogrande
HOLLOMAN APPROACH CONTROL AIRSPACE
MAJOR JET DEPARTURE ROUTES
R-5107A
R-5103A
V280
60 NM
MAJOR JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES/ ALTITUDES
54

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALEXANDRIA, LOUISIANA

VFR PILOTS ARE ENCOURAGED TO CONTACT ALEXANDRIA APPROACH CONTROL FOR TRAFFIC ADVISORY ON 118.2 MHZ

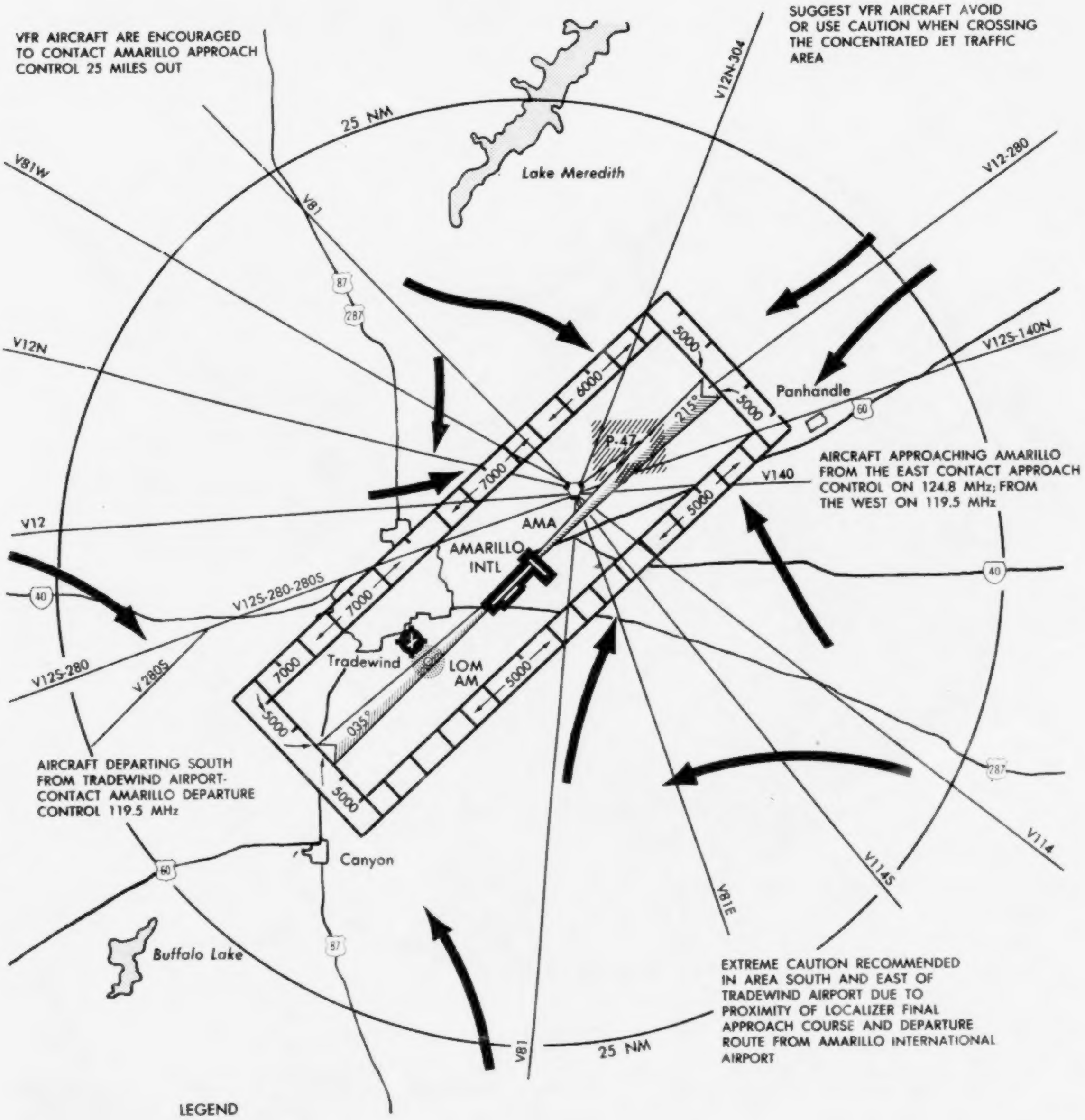

Red River
JENA MOA
PENETRATION AREA 5000'-10000'
Iatt Lake
Catahoula Lake
V114-114N
INDIA 3 MOA
15NM
BELOW 1200
BELOW 1700
SUGG. BELOW 700
Pollock Muni
ESLER REGIONAL
V245
R-3801A 1500' AGL-4000'
James
Cotile Lake
BELOW 1700
ENGLAND AFB
Pineville Muni
R-3801A 500' AGL-4000'
BELOW 1700
V212
V212
AEX
R-3801B SFC-7000'
R-3801C 7000-14000'
Red River
Summerville
Woodworth
15 NM
V114N
PENETRATION AREA 5000'-10000'
Marksville Muni
R-3804A
Cocodrie Lake
V114
HOTROCK MOA
Bunkie Muni
R-3806 EXCLUDES THE AIRSPACE BELOW 1500 AGL
R-3806 SAR TRAINING AREA 500' AGL-7000'
LEGEND
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
1200-7000 GCA CORRIDOR
CONCENTRATED JET TRAFFIC AREA
1700-7000
3000-7000
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL


25 NM
Lake Meredith
V81W
V81
87
287
V12N-304
V12-280
V12S-140N
V12N
Panhandle
60
5000
6000
7000
215°
P-47
V140
V12
AMA
AMARILLO
INTL
40
V12S-280-280S
Tradewind
LOM
AM
035°
V12S-280
V 280S
287
V114
V114S
V81E
Canyon
60
87
Buffalo Lake
V81
25 NM

VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AMARILLO APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THE CONCENTRATED JET TRAFFIC AREA

AIRCRAFT APPROACHING AMARILLO FROM THE EAST CONTACT APPROACH CONTROL ON 124.8 MHz; FROM THE WEST ON 119.5 MHz

AIRCRAFT DEPARTING SOUTH FROM TRADEWIND AIRPORT-CONTACT AMARILLO DEPARTURE CONTROL 119.5 MHz

EXTREME CAUTION RECOMMENDED IN AREA SOUTH AND EAST OF TRADEWIND AIRPORT DUE TO PROXIMITY OF LOCALIZER FINAL APPROACH COURSE AND DEPARTURE ROUTE FROM AMARILLO INTERNATIONAL AIRPORT

LEGEND

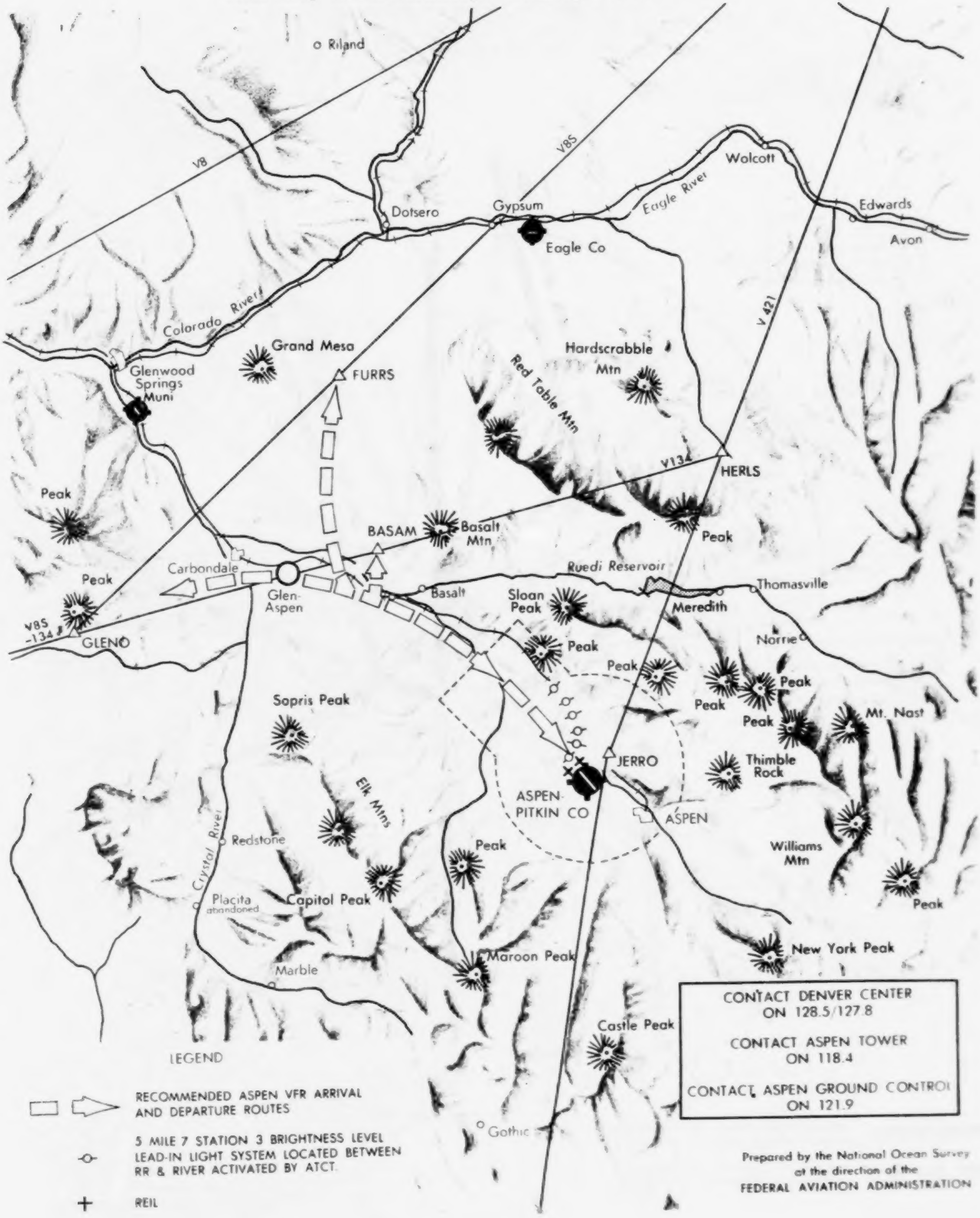
▭▭▭	RADAR VECTOR PATTERN CONCENTRATED JET TRAFFIC AREA
➡	TURBO JET ARRIVAL ROUTE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ASPEN, COLORADO, ASPEN, PITKIN CO.


Riland
V8
V85
Wolcott
Dotsero
Gypsum
Eagle River
Edwards
Avon
Eagle Co
V 421
Colorado River
Grand Mesa
Hardscrabble Mtn
Glenwood Springs Muni
FURRS
Red Table Mtn
V134
HERLS
Peak
BASAM
Basalt Mtn
Peak
Carbondale
Ruedi Reservoir
Thomasville
Peak
Glen-Aspen
Basalt
Sloan Peak
Meredith
V85 -134
GLENO
Norrie
Peak
Peak
Peak
Sopris Peak
Peak
Peak
Mt. Nast
Elk Mtns
JERRO
Thimble Rock
ASPEN-PITKIN CO
ASPEN
Crystal River
Redstone
Peak
Williams Mtn
Placita abandoned
Capitol Peak
Peak
Marble
Maroon Peak
New York Peak
Castle Peak
Gothic

LEGEND

RECOMMENDED ASPEN VFR ARRIVAL AND DEPARTURE ROUTES

5 MILE 7 STATION 3 BRIGHTNESS LEVEL LEAD-IN LIGHT SYSTEM LOCATED BETWEEN RR & RIVER ACTIVATED BY ATCT.

+ REIL

CONTACT DENVER CENTER ON 128.5/127.8

CONTACT ASPEN TOWER ON 118.4

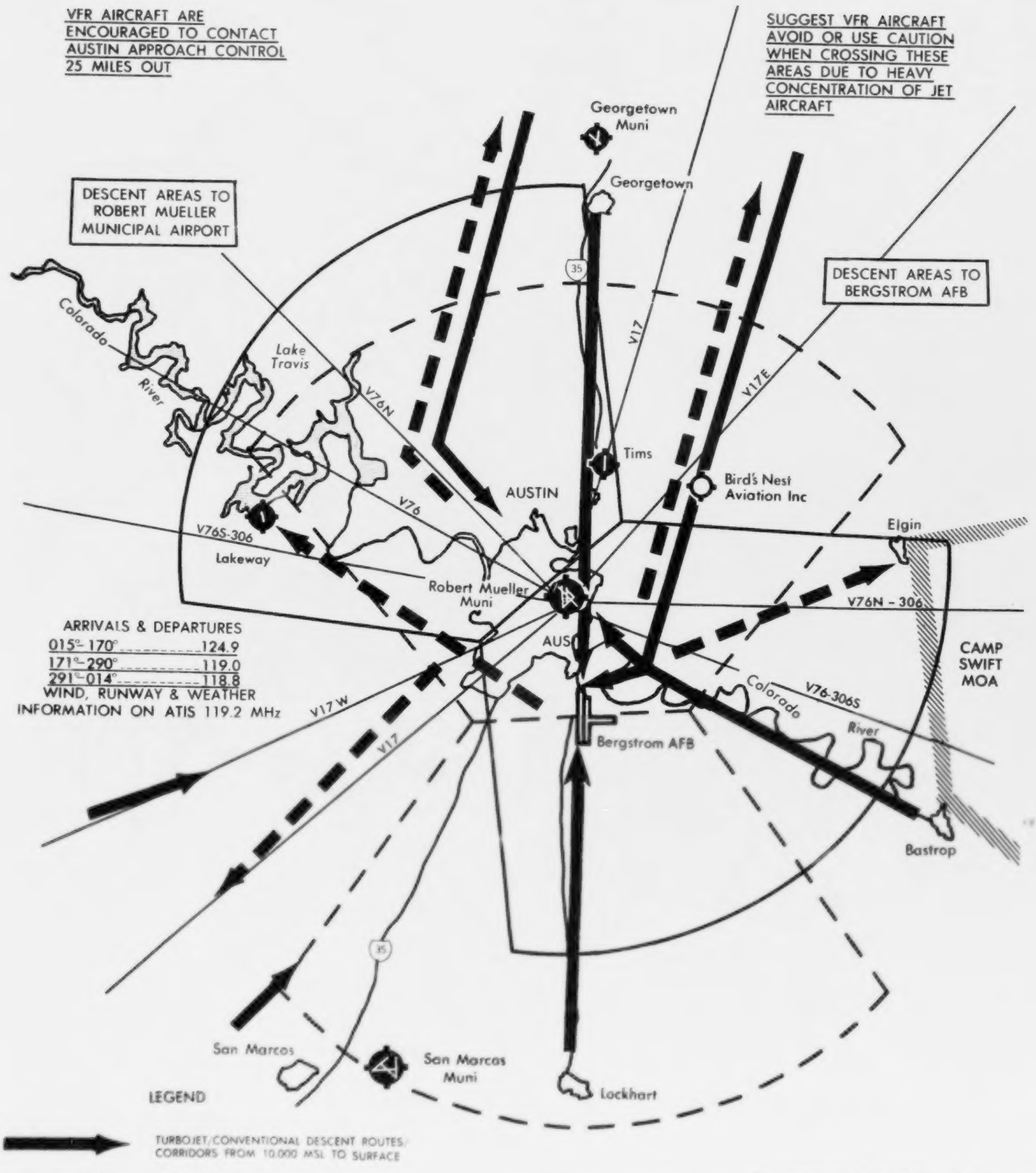
CONTACT ASPEN GROUND CONTROL ON 121.9

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AUSTIN, TEXAS


Georgetown Muni
Georgetown
35
V17
V17E
V76N
V76
V76S-306
Lake Travis
Colorado River
Tims
Bird's Nest Aviation Inc
AUSTIN
Lakeway
Robert Mueller Muni
AUS
Elgin
V76N - 306
CAMP SWIFT MOA
V76-306S
Colorado River
Bergstrom AFB
V17 W
V17
Bastrop
35
San Marcos
San Marcos Muni
Lockhart
LEGEND
TURBOJET/CONVENTIONAL DESCENT ROUTES/CORRIDORS FROM 10,000 MSL TO SURFACE
TURBOJET/CONVENTIONAL CLIMB ROUTES/CORRIDORS FROM SURFACE TO 10,000 MSL

VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AUSTIN APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THESE AREAS DUE TO HEAVY CONCENTRATION OF JET AIRCRAFT

DESCENT AREAS TO ROBERT MUELLER MUNICIPAL AIRPORT

DESCENT AREAS TO BERGSTROM AFB

ARRIVALS & DEPARTURES

015°-170°	124.9
171°-290°	119.0
291°-014°	118.8

WIND, RUNWAY & WEATHER INFORMATION ON ATIS 119.2 MHz

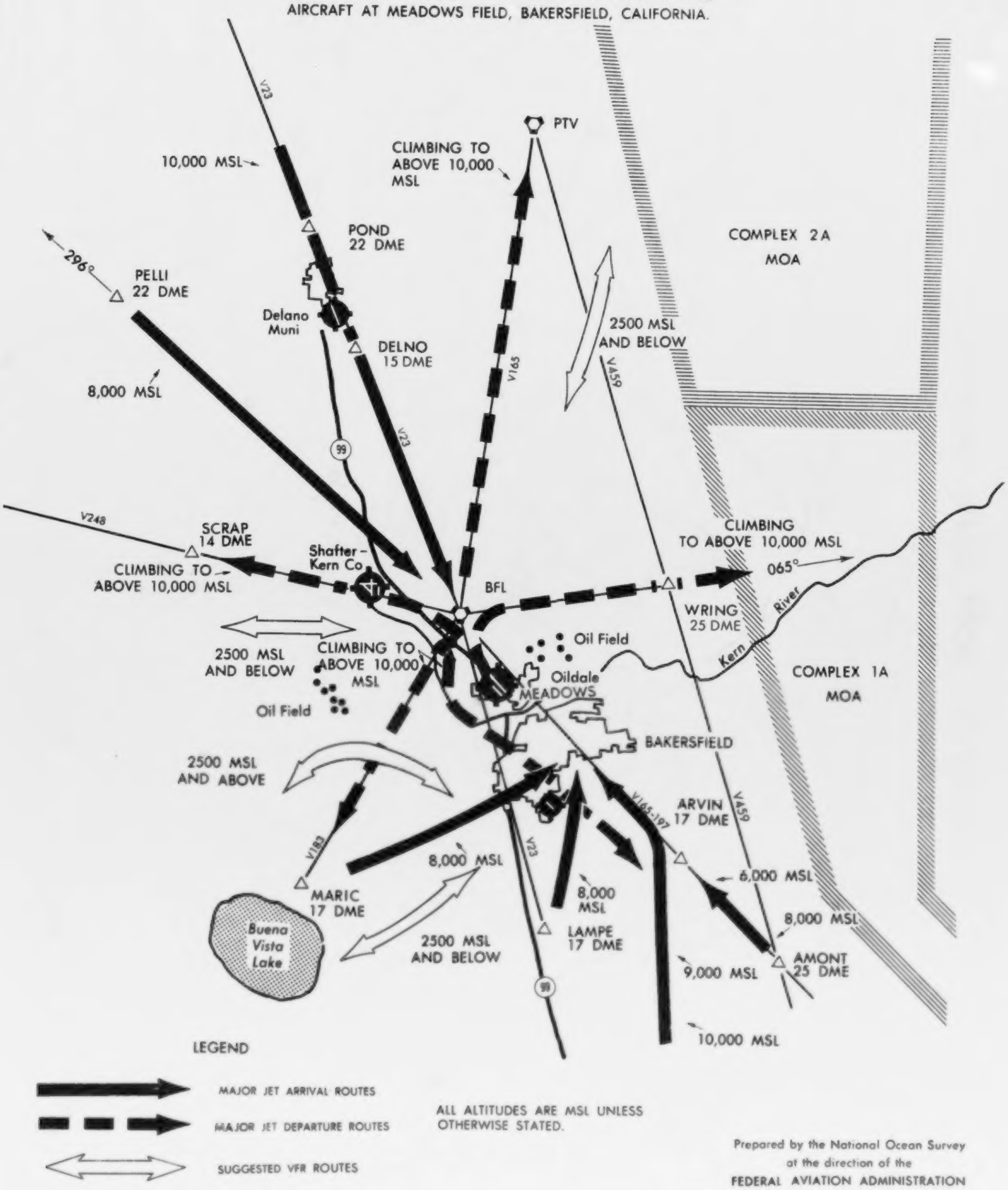
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BAKERSFIELD, CALIFORNIA

THIS CHART SHOWS THE ARRIVAL AND DEPARTURE ROUTES MOST FREQUENTLY USED BY HIGH PERFORMANCE AIRCRAFT AT MEADOWS FIELD, BAKERSFIELD, CALIFORNIA.


V23
10,000 MSL
PTV
CLIMBING TO ABOVE 10,000 MSL
POND 22 DME
296°
PELLI 22 DME
Delano Muni
DELNO 15 DME
COMPLEX 2A MOA
2500 MSL AND BELOW
V165
V459
8,000 MSL
99
V23
V248
SCRAP 14 DME
CLIMBING TO ABOVE 10,000 MSL
Shafter-Kern Co
BFL
CLIMBING TO ABOVE 10,000 MSL
065°
WRING 25 DME
Kern River
Oil Field
2500 MSL AND BELOW
CLIMBING TO ABOVE 10,000 MSL
Oildale
MEADOWS
Oil Field
COMPLEX 1A MOA
BAKERSFIELD
2500 MSL AND ABOVE
ARVIN 17 DME
V165-197
V459
V182
8,000 MSL
V23
6,000 MSL
8,000 MSL
MARIC 17 DME
8,000 MSL
Buena Vista Lake
2500 MSL AND BELOW
LAMPE 17 DME
8,000 MSL
AMONT 25 DME
9,000 MSL
99
10,000 MSL
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES
SUGGESTED VFR ROUTES

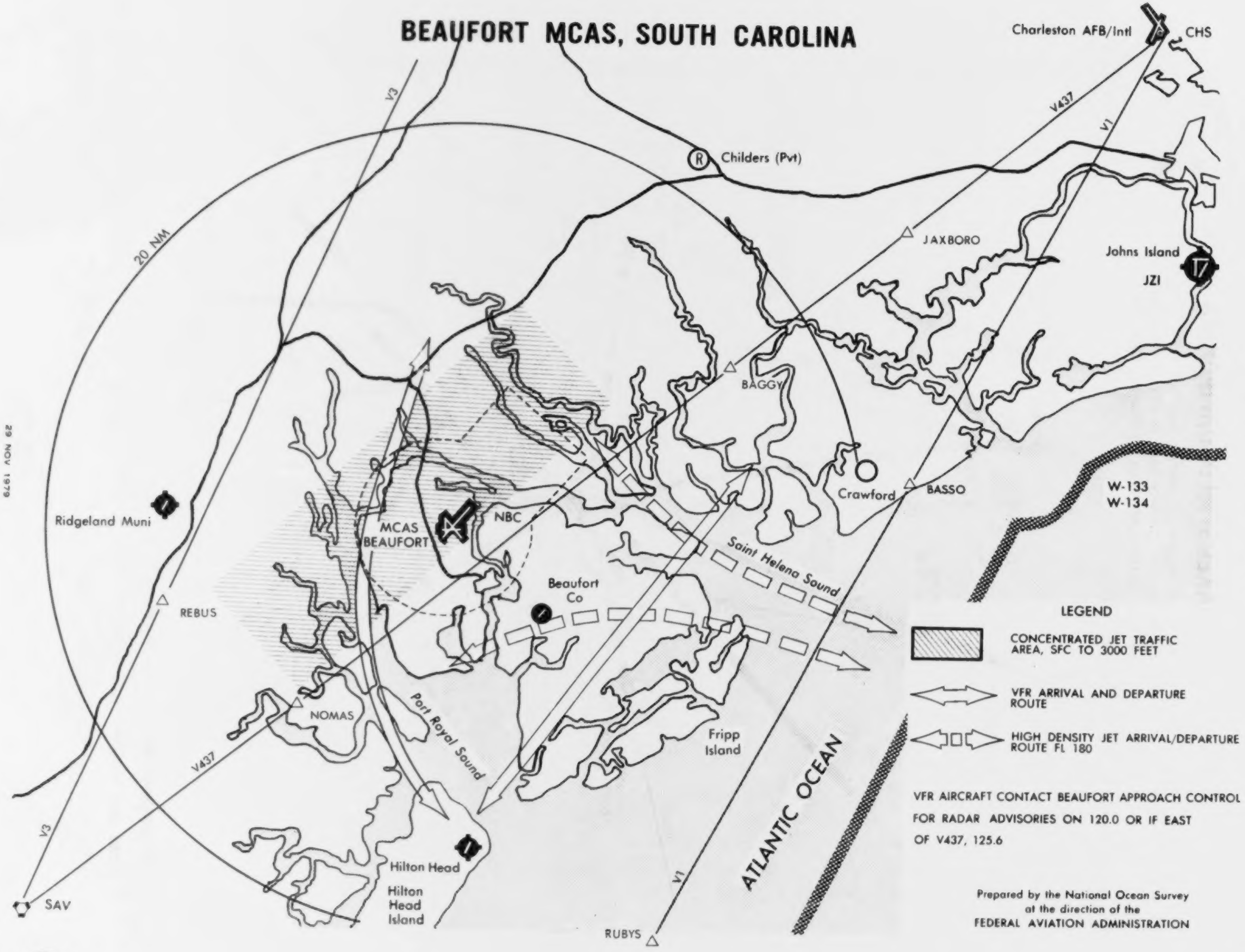
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BEAUFORT MCAS, SOUTH CAROLINA


Charleston AFB/Intl
CHS
V437
V1
V3
Childers (Pvt)
R
20 NM
JAXBORO
Johns Island
JZI
BAGGY
Crawford
BASSO
W-133
W-134
NBC
MCAS BEAUFORT
Ridgeland Muni
Saint Helena Sound
Beaufort Co
REBUS
NOMAS
Port Royal Sound
Fripp Island
ATLANTIC OCEAN
Hilton Head
Hilton Head Island
SAV
RUBYS
LEGEND
CONCENTRATED JET TRAFFIC AREA, SFC TO 3000 FEET
VFR ARRIVAL AND DEPARTURE ROUTE
HIGH DENSITY JET ARRIVAL/DEPARTURE ROUTE FL 180

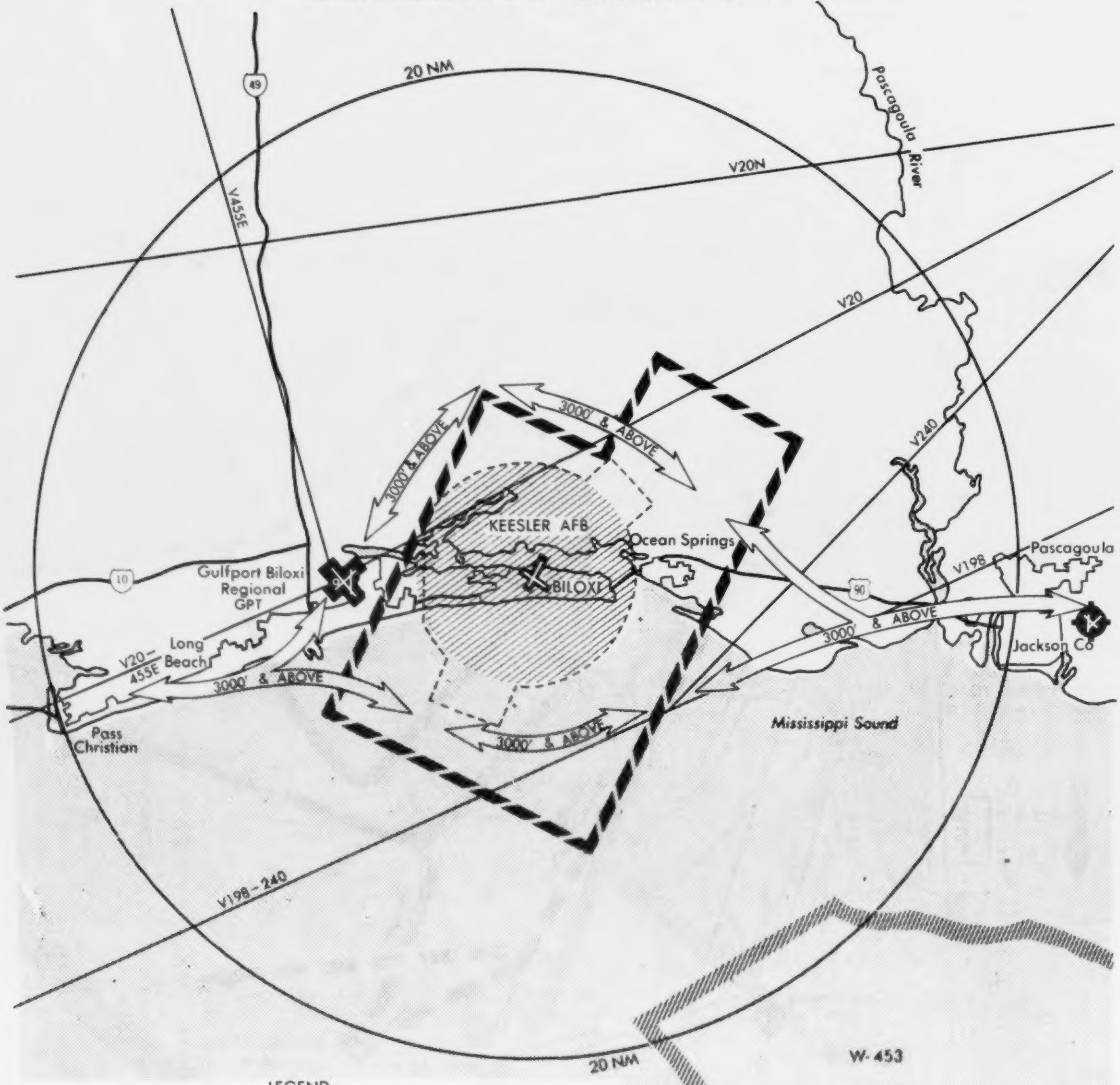
VFR AIRCRAFT CONTACT BEAUFORT APPROACH CONTROL FOR RADAR ADVISORIES ON 120.0 OR IF EAST OF V437, 125.6

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

BILOXI, KEESLER AFB, MISS.

IT IS RECOMMENDED THAT VFR TRAFFIC STAY AT OR ABOVE 3000 FEET, MSL, BECAUSE OF THE HIGH VOLUME OF TRAINING OPERATIONS IN THE AREA. FOR TRAFFIC ADVISORY SERVICE, CONTACT KEESLER TOWER ON 126.2 MHz, 20 NM OUT.


20 NM
49
Pascagoula River
V20N
V455E
V20
V240
3000' & ABOVE
3000' & ABOVE
KEESLER AFB
Ocean Springs
BILOXI
Gulfport Biloxi
Regional
GPT
10
90
V198
Pascagoula
Jackson Co
V20-455E
Long Beach
3000' & ABOVE
3000' & ABOVE
3000' & ABOVE
Pass Christian
Mississippi Sound
V198-240
20 NM
W-453

LEGEND

▨	AIRPORT TRAFFIC AREA
▬ ▬ ▬ ▬	AREA OF HEAVY TRAFFIC (SURFACE TO 3000' MSL)
⟺ 3000' & ABOVE	RECOMMENDED VFR ROUTING

ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

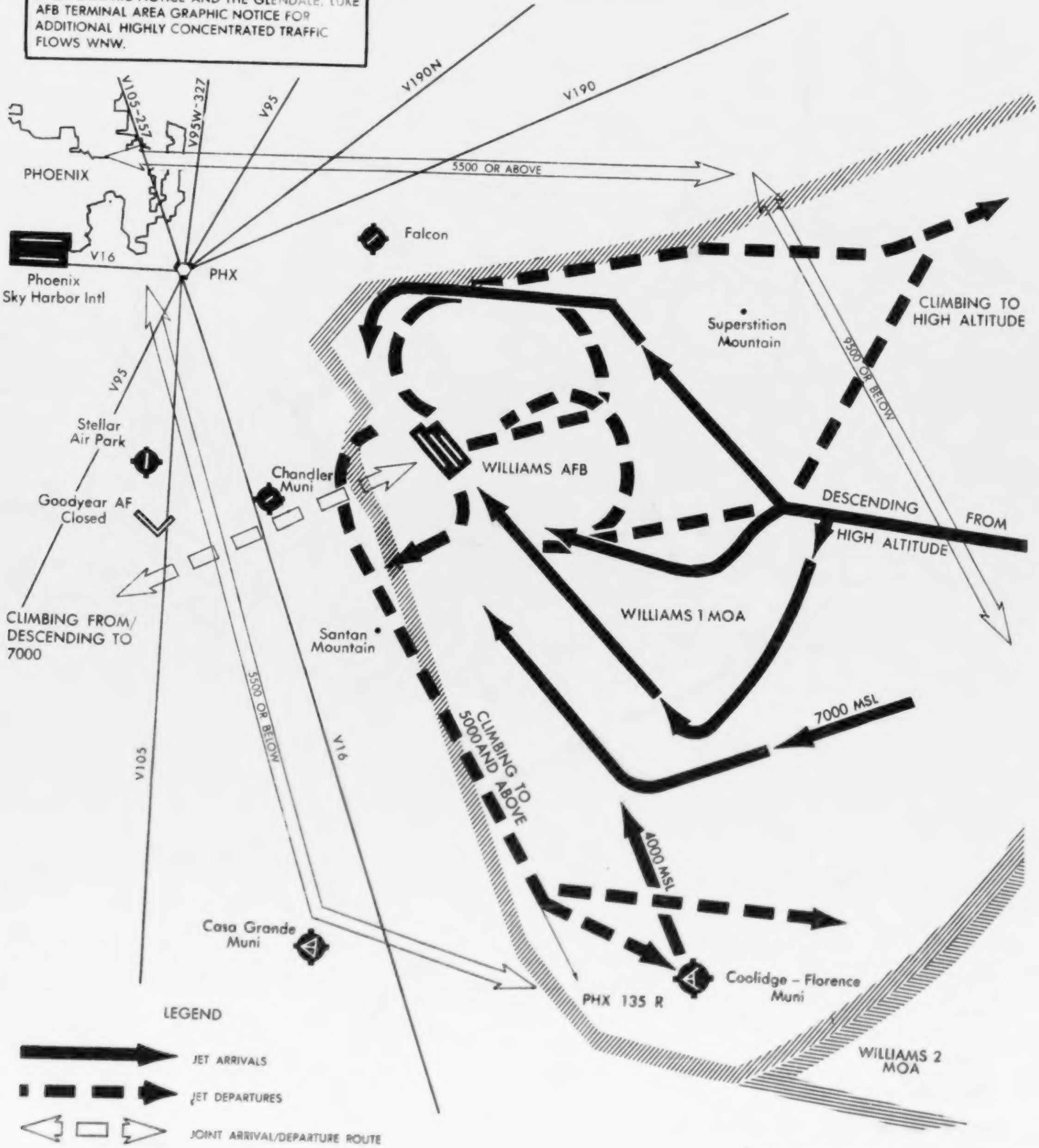
24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CHANDLER, WILLIAMS AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE WILLIAMS AIR FORCE BASE – PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 120.4.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW.


V105-257
V95W-327
V95
V190N
V190
PHOENIX
5500 OR ABOVE
V16
PHX
Phoenix
Sky Harbor Intl
Falcon
Superstition
Mountain
CLIMBING TO
HIGH ALTITUDE
9500 OR BELOW
V95
Stellar
Air Park
Chandler
Muni
WILLIAMS AFB
Goodyear AF
Closed
DESCENDING
FROM
HIGH ALTITUDE
CLIMBING FROM/
DESCENDING TO
7000
WILLIAMS 1 MOA
Santan
Mountain
5500 OR BELOW
V16
V105
CLIMBING TO
5000 AND ABOVE
7000 MSL
4000 MSL
Casa Grande
Muni
Coolidge – Florence
Muni
PHX 135 R
WILLIAMS 2
MOA
LEGEND
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

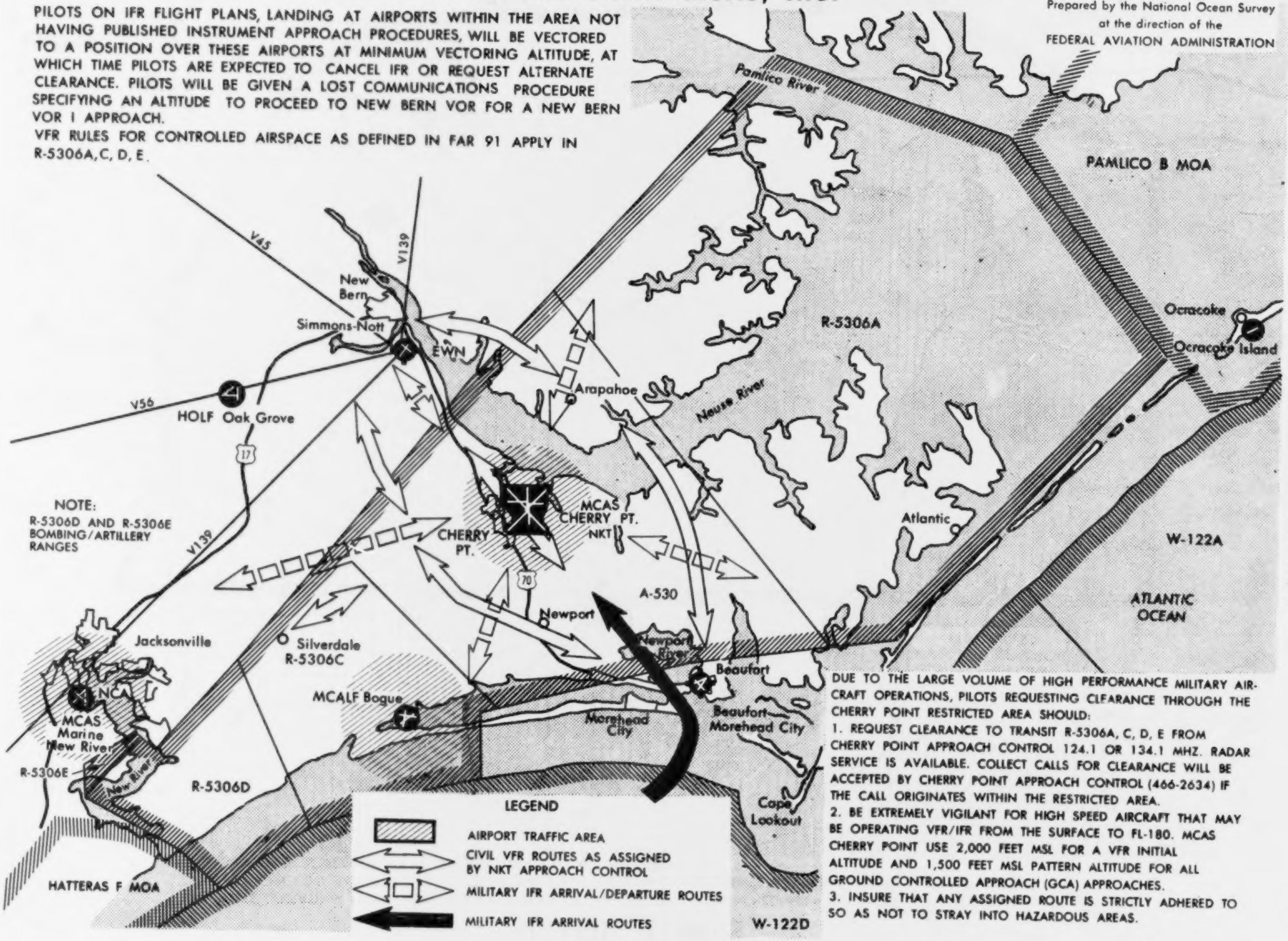
9 AUG 1979

CHERRY POINT MCAS, N.C.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

PILOTS ON IFR FLIGHT PLANS, LANDING AT AIRPORTS WITHIN THE AREA NOT HAVING PUBLISHED INSTRUMENT APPROACH PROCEDURES, WILL BE VECTORED TO A POSITION OVER THESE AIRPORTS AT MINIMUM VECTORING ALTITUDE, AT WHICH TIME PILOTS ARE EXPECTED TO CANCEL IFR OR REQUEST ALTERNATE CLEARANCE. PILOTS WILL BE GIVEN A LOST COMMUNICATIONS PROCEDURE SPECIFYING AN ALTITUDE TO PROCEED TO NEW BERN VOR FOR A NEW BERN VOR I APPROACH.

VFR RULES FOR CONTROLLED AIRSPACE AS DEFINED IN FAR 91 APPLY IN R-5306A, C, D, E.


Pamlico River
PAMLICO B MOA
V45
V139
New Bern
Simmons-Nott
EWN
Arapahoe
Neuse River
R-5306A
Ocracoke
Ocracoke Island
V56
HOLF Oak Grove
17
MCAS CHERRY PT.
NKT
CHERRY PT.
70
Atlantic
W-122A
ATLANTIC OCEAN
A-530
Newport
Newport River
Beaufort
Beaufort-Morehead City
Morehead City
Jacksonville
Silverdale
R-5306C
MCALF Bogue
MCAS Marine New River
NCA
New River
R-5306E
R-5306D
Cape Lookout
HATTERAS F MOA
W-122D
LEGEND
AIRPORT TRAFFIC AREA
CIVIL VFR ROUTES AS ASSIGNED BY NKT APPROACH CONTROL
MILITARY IFR ARRIVAL/DEPARTURE ROUTES
MILITARY IFR ARRIVAL ROUTES

NOTE:
R-5306D AND R-5306E BOMBING/ARTILLERY RANGES

DUE TO THE LARGE VOLUME OF HIGH PERFORMANCE MILITARY AIRCRAFT OPERATIONS, PILOTS REQUESTING CLEARANCE THROUGH THE CHERRY POINT RESTRICTED AREA SHOULD:

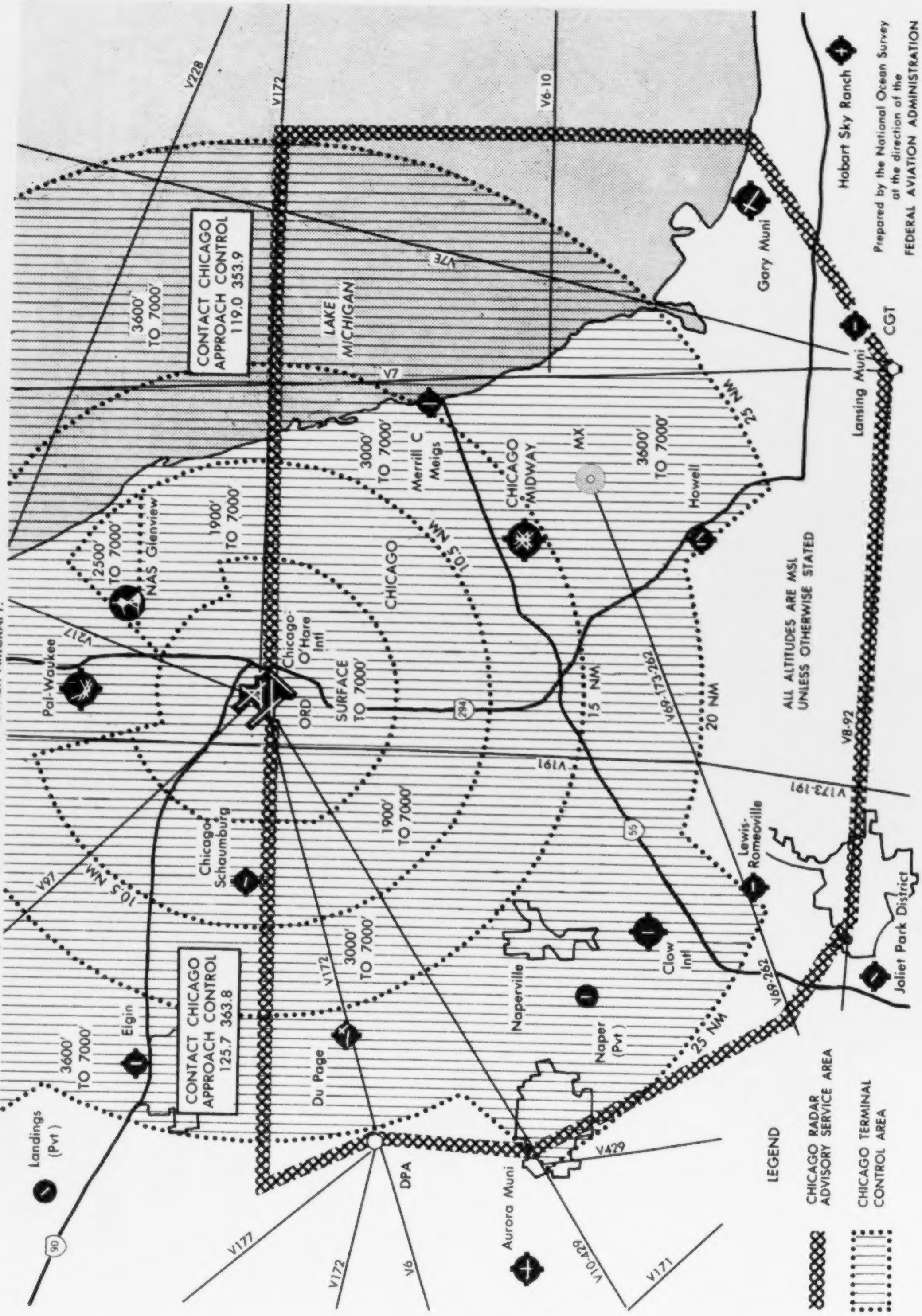
1. REQUEST CLEARANCE TO TRANSIT R-5306A, C, D, E FROM CHERRY POINT APPROACH CONTROL 124.1 OR 134.1 MHZ. RADAR SERVICE IS AVAILABLE. COLLECT CALLS FOR CLEARANCE WILL BE ACCEPTED BY CHERRY POINT APPROACH CONTROL (466-2634) IF THE CALL ORIGINATES WITHIN THE RESTRICTED AREA.
2. BE EXTREMELY VIGILANT FOR HIGH SPEED AIRCRAFT THAT MAY BE OPERATING VFR/IFR FROM THE SURFACE TO FL-180. MCAS CHERRY POINT USE 2,000 FEET MSL FOR A VFR INITIAL ALTITUDE AND 1,500 FEET MSL PATTERN ALTITUDE FOR ALL GROUND CONTROLLED APPROACH (GCA) APPROACHES.
3. INSURE THAT ANY ASSIGNED ROUTE IS STRICTLY ADHERED TO SO AS NOT TO STRAY INTO HAZARDOUS AREAS.

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

CHICAGO , ILLINOIS

VFR PILOTS OPERATING ABOVE, BENEATH OR OUTSIDE OF THE TCA, IN THE HATCHED AREA DEPICTED, ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR ADVISORY SERVICE ON 126.8 MHz. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.

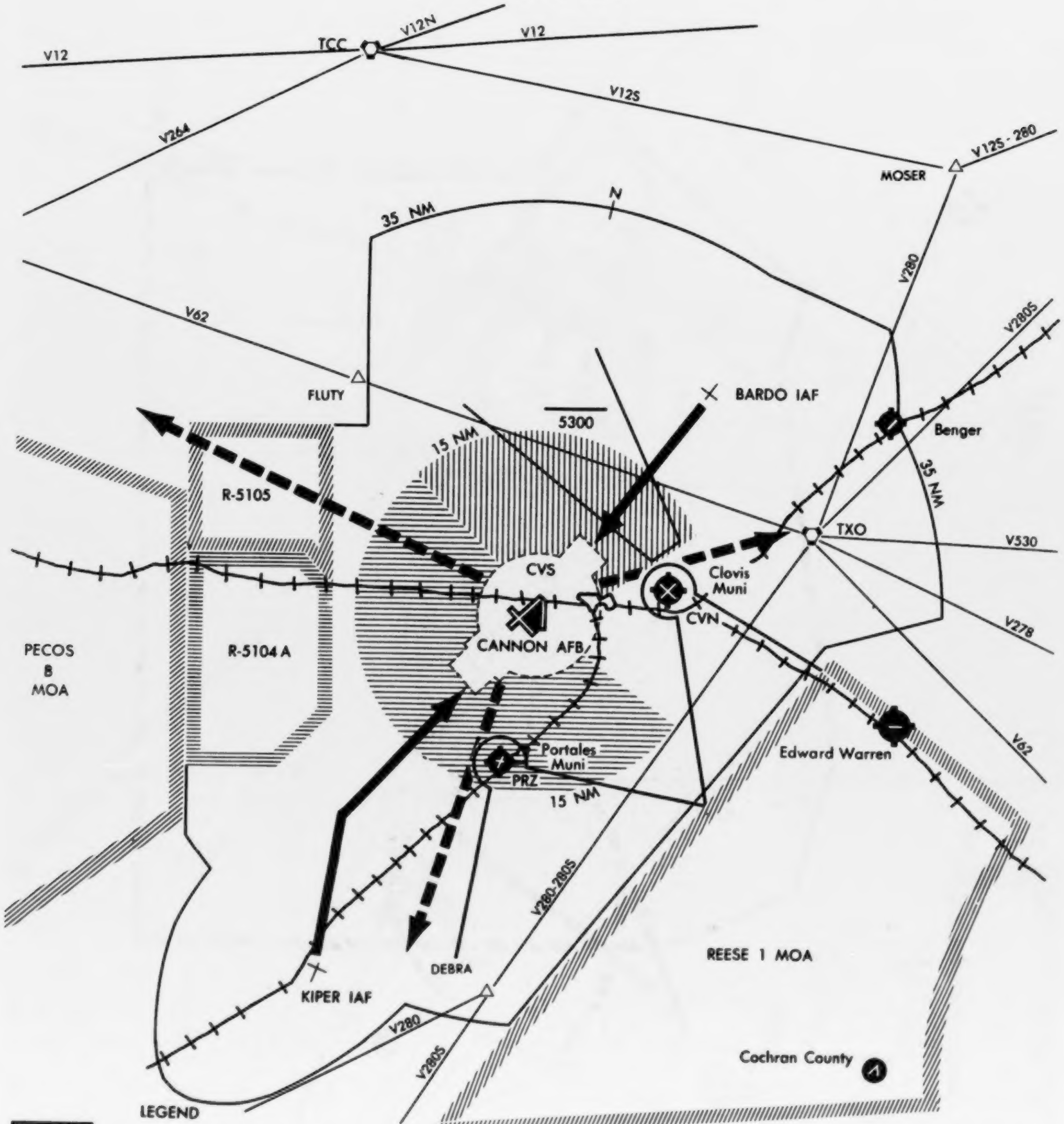

CONTACT CHICAGO APPROACH CONTROL 119.0 353.9
CONTACT CHICAGO APPROACH CONTROL 125.7 363.8
LAKE MICHIGAN
V228
V172
V6-10
V7E
V7
V217
V97
V191
V173-191
V8-92
V69-173-262
V69-262
V429
V10-429
V171
V6
V177
3600' TO 7000'
3000' TO 7000'
2500' TO 7000'
1900' TO 7000'
SURFACE TO 7000'
10.5 NM
15 NM
20 NM
25 NM
Gary Muni
Hobart Sky Ranch
CGT
Lansing Muni
Merrill C Meigs
CHICAGO MIDWAY
MX
Howell
NAS Glenview
Pal-Waukee
Chicago-O'Hare Intl
ORD
CHICAGO
294
55
90
Chicago-Schaumburg
Lewis-Romeoville
Joliet Park District
Clow Intl
Naperville
Naper (Pvt)
Elgin
Du Page
DPA
Landings (Pvt)
Aurora Muni
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
LEGEND
CHICAGO RADAR ADVISORY SERVICE AREA
CHICAGO TERMINAL CONTROL AREA

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CLOVIS, NEW MEXICO
CANNON AFB


V12
TCC
V12N
V12
V12S
V264
MOSER
V12S - 280
35 NM
N
V280
V62
FLUTY
BARDO IAF
V280S
Benger
5300
15 NM
R-5105
35 NM
TXO
V530
CVS
Clovis Muni
CVN
V278
PECOS B MOA
R-5104 A
CANNON AFB
Edward Warren
V62
Portales Muni
PRZ
15 NM
V280-280S
REESE 1 MOA
KIPER IAF
DEBRA
V280
V280S
Cochran County

LEGEND

▥ 5800 MSL TO 6300 MSL

▤ 5800 MSL TO 7000 MSL

➡ ARRIVAL ROUTE

⇢ DEPARTURE ROUTE

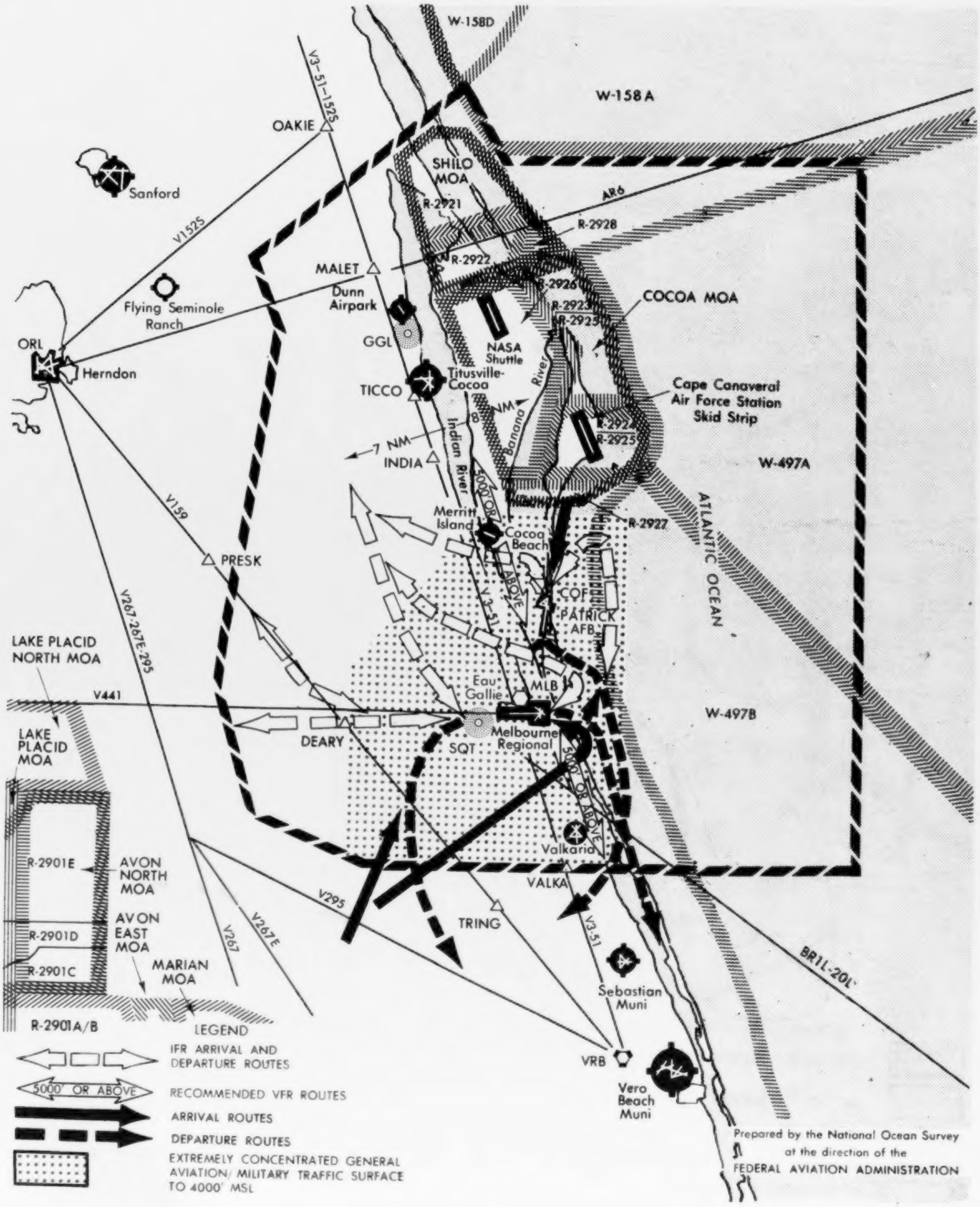
RECOMMENDED VFR CORRIDORS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

22 FEB 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, PATRICK AFB, FLA.

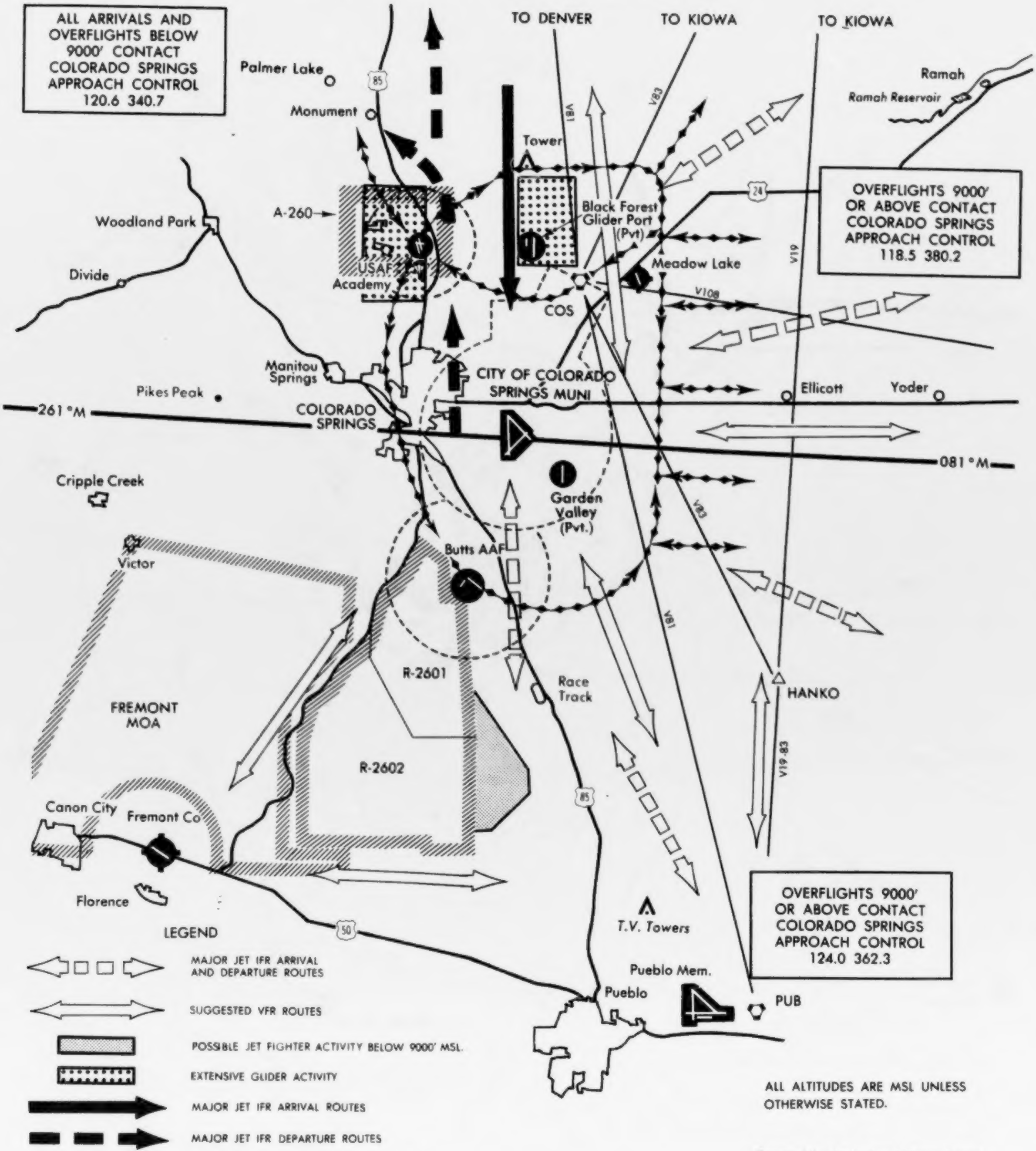

W-158D
W-158 A
OAKIE
V3-51-152S
Sanford
V152S
AR6
SHILO MOA
R-2921
R-2928
R-2922
MALET
ORL
Herndon
Flying Seminole Ranch
Dunn Airpark
GGL
R-2926
R-2923
R-2925
COCOA MOA
NASA Shuttle
Titusville-Cocoa
TICCO
Banana River
Cape Canaveral Air Force Station Skid Strip
8 NM
7 NM
Indian River
INDIA
R-2924
R-2925
W-497A
V159
5000' OR ABOVE
Merritt Island
Cocoa Beach
R-2927
ATLANTIC OCEAN
PRESK
COF
PATRICK AFB
V3-51
V267-267E-295
LAKE PLACID NORTH MOA
V441
Eau Gallie
MLB
W-497B
LAKE PLACID MOA
DEARY
SQT
Melbourne Regional
5000' OR ABOVE
Valkaria
R-2901E
AVON NORTH MOA
VALKA
V295
AVON EAST MOA
R-2901D
R-2901C
V267
V267E
TRING
V3-51
Sebastian Muni
BR11L-201
MARIAN MOA
R-2901A/B
VRB
Vero Beach Muni
LEGEND
IFR ARRIVAL AND DEPARTURE ROUTES
5000' OR ABOVE
RECOMMENDED VFR ROUTES
ARRIVAL ROUTES
DEPARTURE ROUTES
EXTREMELY CONCENTRATED GENERAL AVIATION/ MILITARY TRAFFIC SURFACE TO 4000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO


ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL 120.6 340.7
TO DENVER
TO KIOWA
TO KIOWA
Palmer Lake
Monument
85
Ramah
Ramah Reservoir
V81
V83
Tower
A-260
Woodland Park
Divide
USAF Academy
Black Forest Glider Port (Pvt)
24
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 118.5 380.2
V19
Meadow Lake
V108
COS
Manitou Springs
CITY OF COLORADO SPRINGS MUNI
Ellicott
Yoder
Pikes Peak
261 °M
COLORADO SPRINGS
081 °M
Cripple Creek
Garden Valley (Pvt.)
V83
Victor
Butts AAF
V81
HANKO
R-2601
Race Track
FREMONT MOA
V19-83
R-2602
85
Canon City
Fremont Co
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 124.0 362.3
Florence
T.V. Towers
50
Pueblo Mem.
Pueblo
PUB
LEGEND
MAJOR JET IFR ARRIVAL AND DEPARTURE ROUTES
SUGGESTED VFR ROUTES
POSSIBLE JET FIGHTER ACTIVITY BELOW 9000′ MSL.
EXTENSIVE GLIDER ACTIVITY
MAJOR JET IFR ARRIVAL ROUTES
MAJOR JET IFR DEPARTURE ROUTES
LIGHT AIRCRAFT TRAINING ROUTES & AREAS. ROUTES 8500′ OR BELOW. SOME AREAS TO 11000′.

ALL ALTITUDES ARE MSL UNLESS
OTHERWISE STATED.

Prepared by the National Ocean Survey
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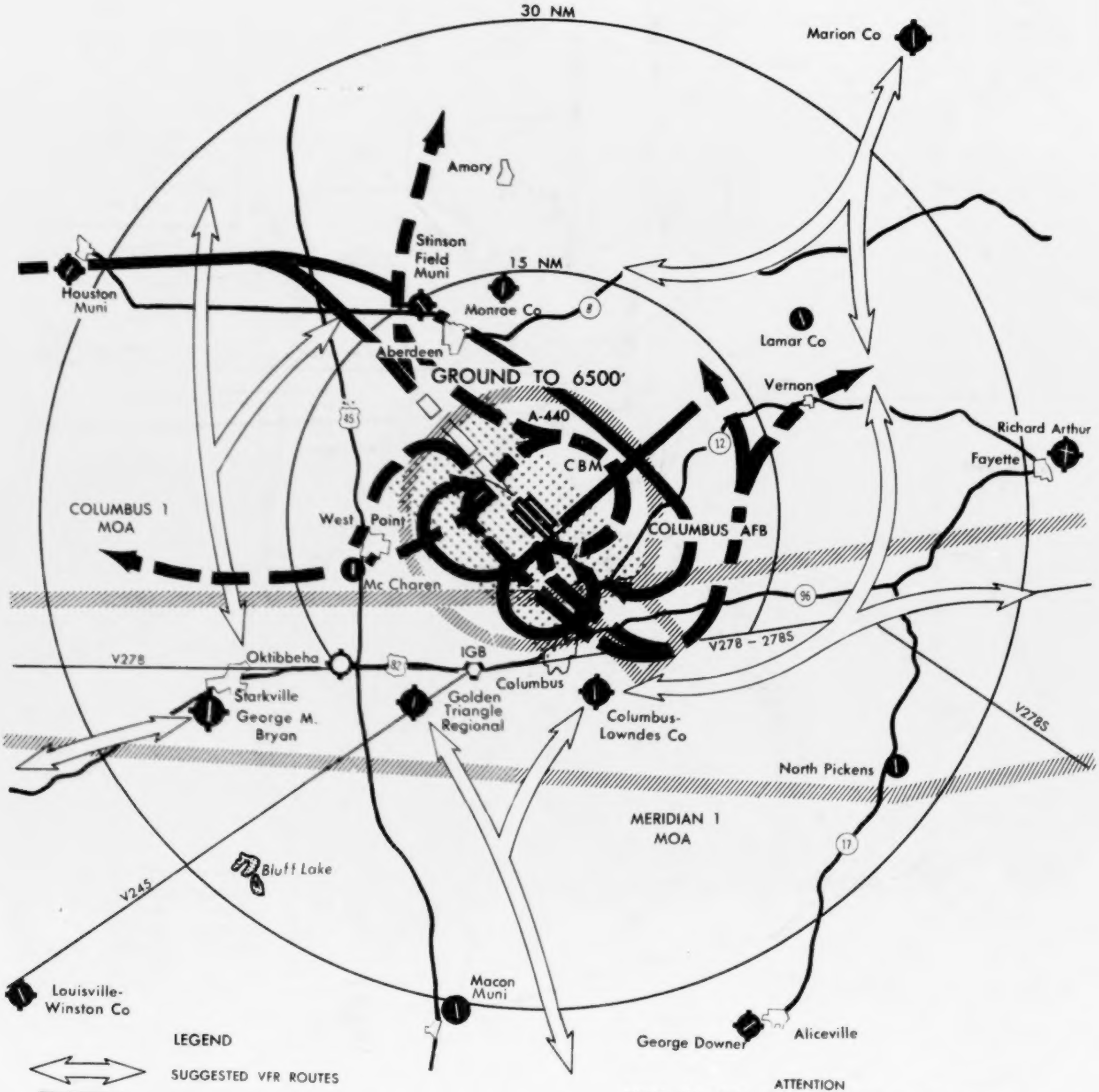
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI


30 NM
Marion Co
Amory
Stinson
Field
Muni
15 NM
Houston
Muni
Monroe Co
8
Lamar Co
Aberdeen
GROUND TO 6500'
Vernon
A-440
45
12
CBM
Richard Arthur
Fayette
COLUMBUS 1
MOA
West Point
COLUMBUS AFB
Mc Charen
96
V278 – 278S
V278
Oktibbeha
82
IGB
Columbus
Starkville
George M.
Bryan
Golden
Triangle
Regional
Columbus-
Lowndes Co
V278S
North Pickens
MERIDIAN 1
MOA
17
Bluff Lake
V245
Louisville-
Winston Co
Macon
Muni
George Downer
Aliceville

LEGEND

⇔ SUGGESTED VFR ROUTES

▨ SUGGEST AVOID THESE AREAS DUE TO CONCENTRATED JET TRAFFIC

▭⇨ JOINT ARRIVAL / DEPARTURE ROUTES

➡ JET TRAFFIC ARRIVAL ROUTES

▬➡ JET TRAFFIC DEPARTURE ROUTES

ATTENTION
RADAR ADVISORIES AVAILABLE WITHIN 30 NM OF COLUMBUS AFB. CONTACT COLUMBUS APPROACH CONTROL ON; 294.5, 363.8, 120.4 OR 134.1

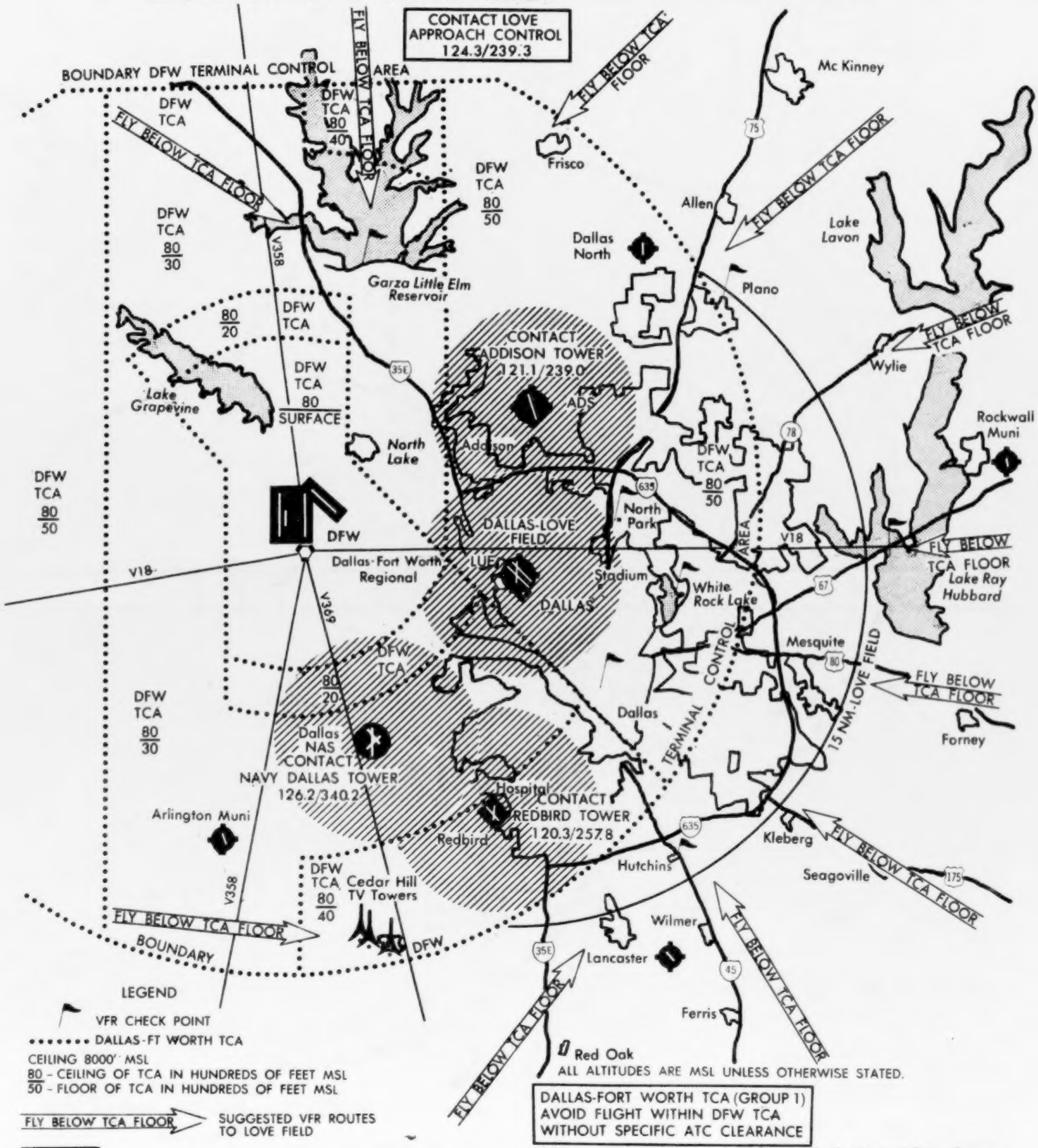
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DALLAS LOVE FIELD, TEXAS

LOVE TOWER WILL PROVIDE RADAR SERVICE WITHIN 15 MILES OF LOVE FIELD EXCLUDING THE DFW TCA, ADDISON, REDBIRD, AND NAS DALLAS AIRPORT TRAFFIC AREAS. REGIONAL APPROACH CONTROL WILL PROVIDE RADAR SERVICE ELSEWHERE. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUED VIGILANCE TO SEE AND AVOID OTHER TRAFFIC.


CONTACT LOVE APPROACH CONTROL 124.3/239.3
BOUNDARY DFW TERMINAL CONTROL AREA
FLY BELOW TCA FLOOR
DFW TCA 80/40
DFW TCA 80/50
DFW TCA 80/30
DFW TCA 80/20
DFW TCA 80/SURFACE
Mc Kinney
Frisco
Allen
Dallas North
Plano
Lake Lavon
Wylie
Rockwall Muni
Garza Little Elm Reservoir
Lake Grapevine
North Lake
CONTACT ADDISON TOWER 121.1/239.0
ADS
Addison
North Park
DALLAS-LOVE FIELD
LUF
DALLAS
DFW
Dallas-Fort Worth Regional
Stadium
White Rock Lake
V18
V358
V369
75
35E
78
635
67
80
45
175
Lake Ray Hubbard
Mesquite
Forney
TERMINAL CONTROL AREA
15 NM-LOVE FIELD
Dallas
Dallas NAS
CONTACT NAVY DALLAS TOWER 126.2/340.2
Hospital
CONTACT REDBIRD TOWER 120.3/257.8
Redbird
Arlington Muni
Hutchins
Kleberg
Seagoville
Cedar Hill TV Towers
Wilmer
Lancaster
Ferris
Red Oak
BOUNDARY

LEGEND

VFR CHECK POINT
•••••• DALLAS-FT WORTH TCA
CEILING 8000' MSL
80 - CEILING OF TCA IN HUNDREDS OF FEET MSL
50 - FLOOR OF TCA IN HUNDREDS OF FEET MSL
FLY BELOW TCA FLOOR → SUGGESTED VFR ROUTES TO LOVE FIELD
▨ AIRPORT TRAFFIC AREA

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

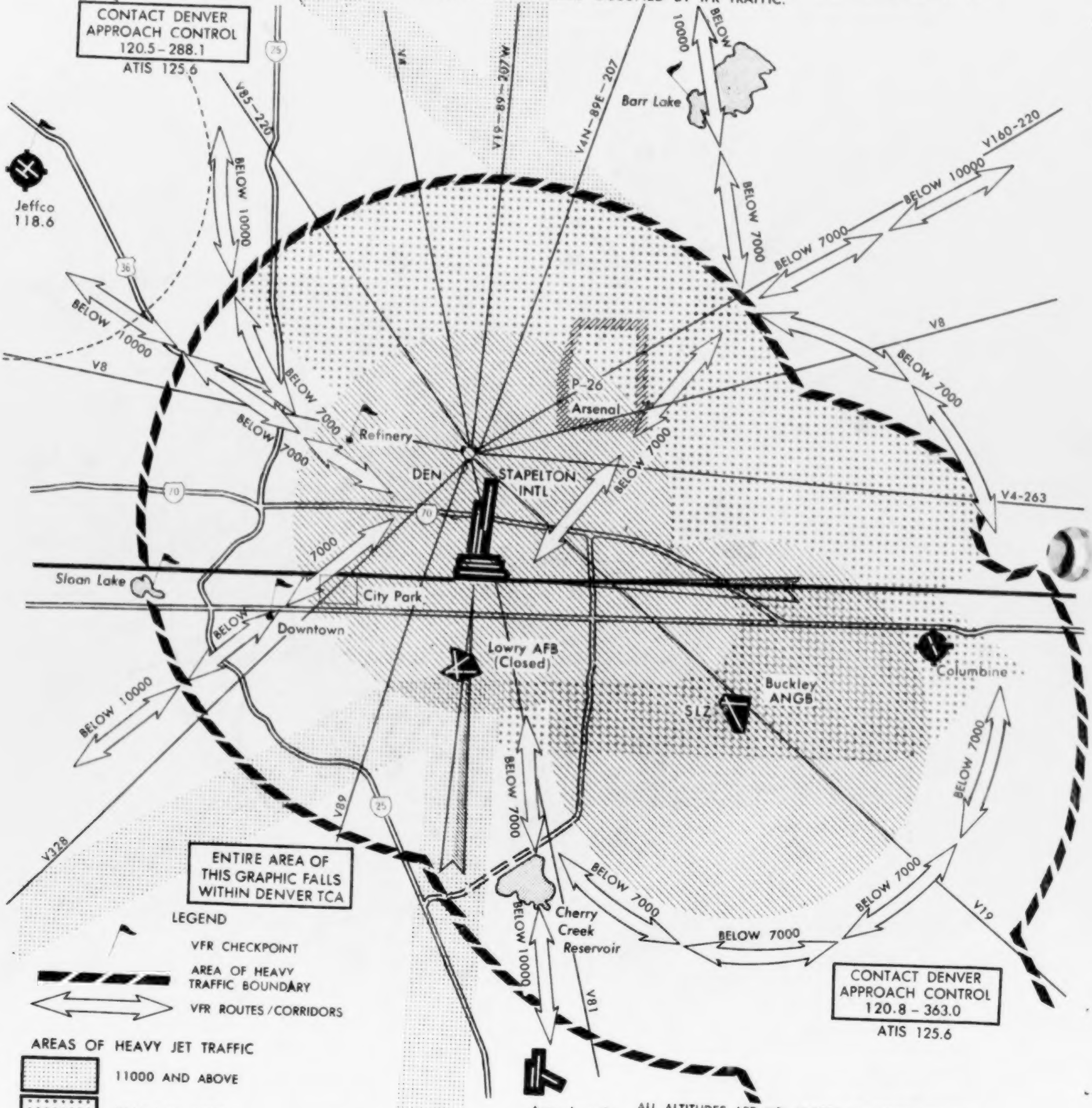
DALLAS-FORT WORTH TCA (GROUP 1)
AVOID FLIGHT WITHIN DFW TCA
WITHOUT SPECIFIC ATC CLEARANCE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DENVER, COLORADO

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DENVER TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT DENVER RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.


CONTACT DENVER APPROACH CONTROL 120.5 – 288.1
ATIS 125.6
Jeffco 118.6
V85—220
V8
V19—89—207W
V4N—89E—207
10000
BELOW
Barr Lake
BELOW 10000
BELOW 7000
V160-220
BELOW 10000
BELOW 7000
BELOW 10000
V8
BELOW 7000
BELOW 7000
P-26
Arsenal
Refinery
BELOW 7000
DEN
STAPELTON INTL
BELOW 7000
V4-263
70
70
7000
Sloan Lake
City Park
BELOW
Downtown
Lowry AFB (Closed)
Buckley ANGB
SLZ
Columbine
BELOW 10000
BELOW 7000
BELOW 7000
V89
25
V328
ENTIRE AREA OF THIS GRAPHIC FALLS WITHIN DENVER TCA
BELOW 7000
BELOW 7000
BELOW 7000
V19
BELOW 10000
Cherry Creek Reservoir
V81
CONTACT DENVER APPROACH CONTROL 120.8 – 363.0
ATIS 125.6
Arapahoe Co.
LEGEND
VFR CHECKPOINT
AREA OF HEAVY TRAFFIC BOUNDARY
VFR ROUTES/CORRIDORS
AREAS OF HEAVY JET TRAFFIC
11000 AND ABOVE
7000 AND ABOVE
AIRPORT TRAFFIC AREA COMPLY WITH FAR 91.87
36
25

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

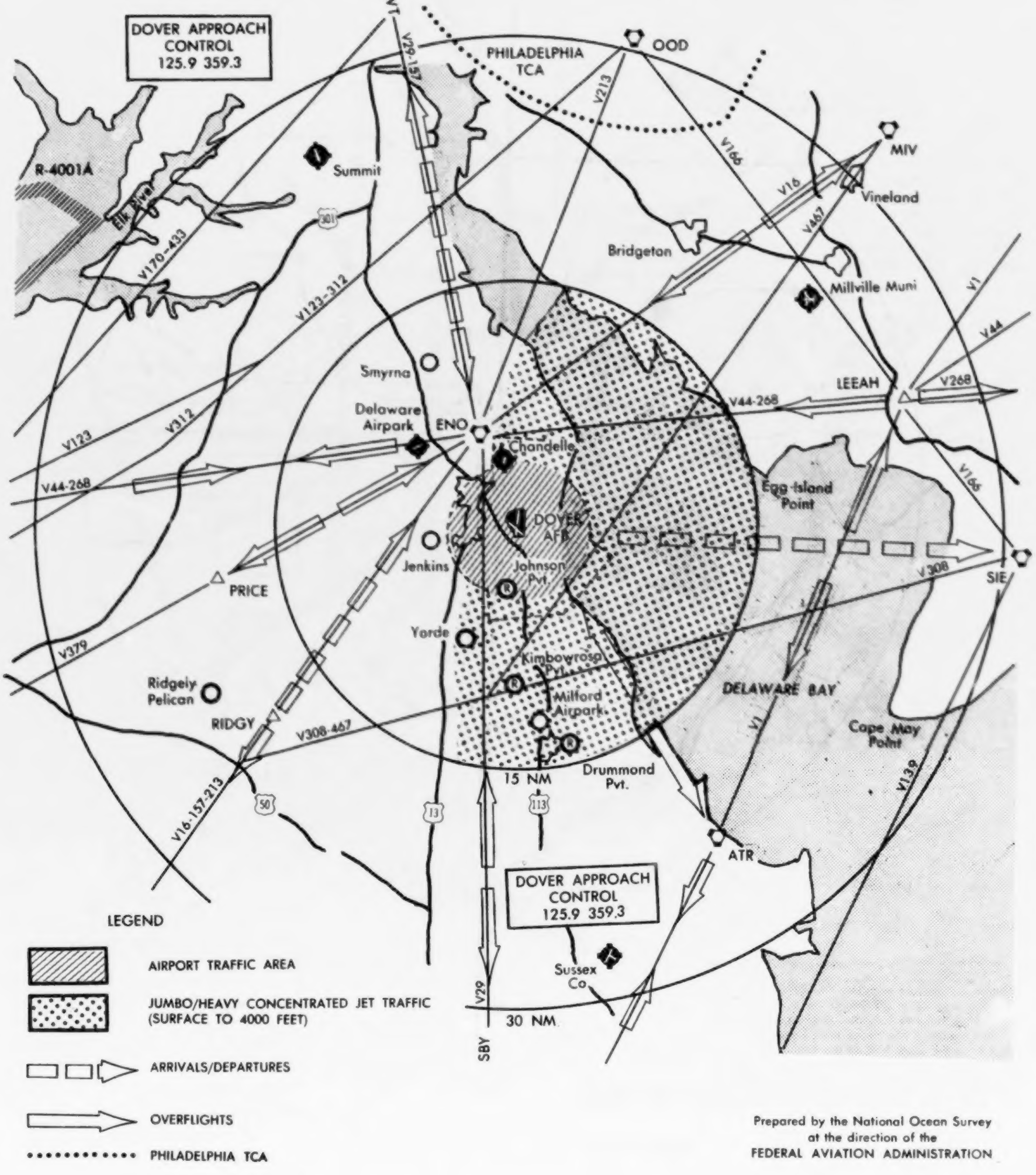
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DOVER AFB, DELAWARE

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DOVER RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT DOVER APPROACH CONTROL ON 125.9 - 359.3 FOR TRAFFIC ADVISORIES.

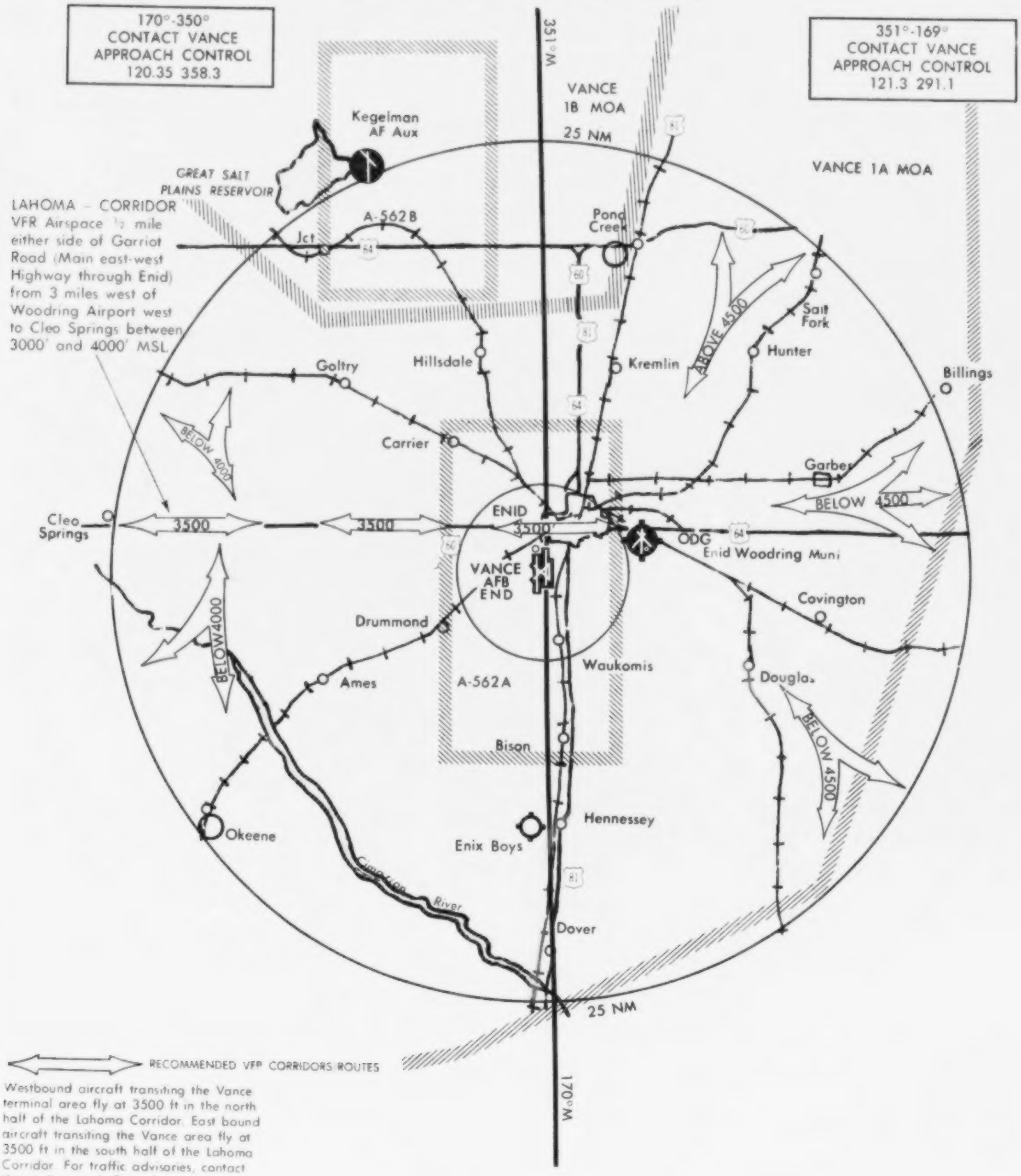

DOVER APPROACH CONTROL 125.9 359.3
EWT
V29-157
PHILADELPHIA TCA
V213
OOD
V166
MIV
V16
V467
Vineland
Bridgeton
Millville Muni
R-4001A
Elk River
Summit
301
V170-433
V123-312
V1
V44
Smyrna
Delaware Airpark
ENO
Chandelle
V123
V312
V44-268
LEEAH
V268
V44-268
Egg Island Point
DOVER AFB
Jenkins
Johnson Pvt.
PRICE
V308
SIE
Yorde
V379
Kimbowrosa Pvt.
Ridgely Pelican
Milford Airpark
DELAWARE BAY
RIDGY
V308-467
Cape May Point
V1
V139
15 NM
Drummond Pvt.
V16-157-213
50
13
113
ATR
DOVER APPROACH CONTROL 125.9 359.3
Sussex Co
V29
30 NM
SBY
LEGEND
AIRPORT TRAFFIC AREA
JUMBO/HEAVY CONCENTRATED JET TRAFFIC (SURFACE TO 4000 FEET)
ARRIVALS/DEPARTURES
OVERFLIGHTS
PHILADELPHIA TCA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ENID - VANCE, OKLAHOMA


170°-350°
CONTACT VANCE
APPROACH CONTROL
120.35 358.3
351°M
351°-169°
CONTACT VANCE
APPROACH CONTROL
121.3 291.1
VANCE
1B MOA
25 NM
VANCE 1A MOA
Kegelman
AF Aux
GREAT SALT
PLAINS RESERVOIR
LAHOMA – CORRIDOR
VFR Airspace ½ mile
either side of Garriot
Road (Main east-west
Highway through Enid)
from 3 miles west of
Woodring Airport west
to Cleo Springs between
3000' and 4000' MSL.
A-562B
Jct
Pond
Creek
64
60
81
Salt
Fork
Hunter
ABOVE 4500
Kremlin
Hillsdale
Goltry
Billings
BELOW 4000
Carrier
Garber
BELOW 4500
Cleo
Springs
3500
3500
ENID
3500'
ODG
Enid Woodring Muni
VANCE
AFB
END
Covington
Drummond
BELOW 4000
Waukomis
Douglas
Ames
A-562A
BELOW 4500
Bison
Okeene
Hennessey
Enix Boys
Cimarron
River
Dover
25 NM
RECOMMENDED VFR CORRIDORS ROUTES
170°M

Westbound aircraft transiting the Vance terminal area fly at 3500 ft in the north half of the Lahoma Corridor. East bound aircraft transiting the Vance area fly at 3500 ft in the south half of the Lahoma Corridor. For traffic advisories, contact Vance Approach Control.

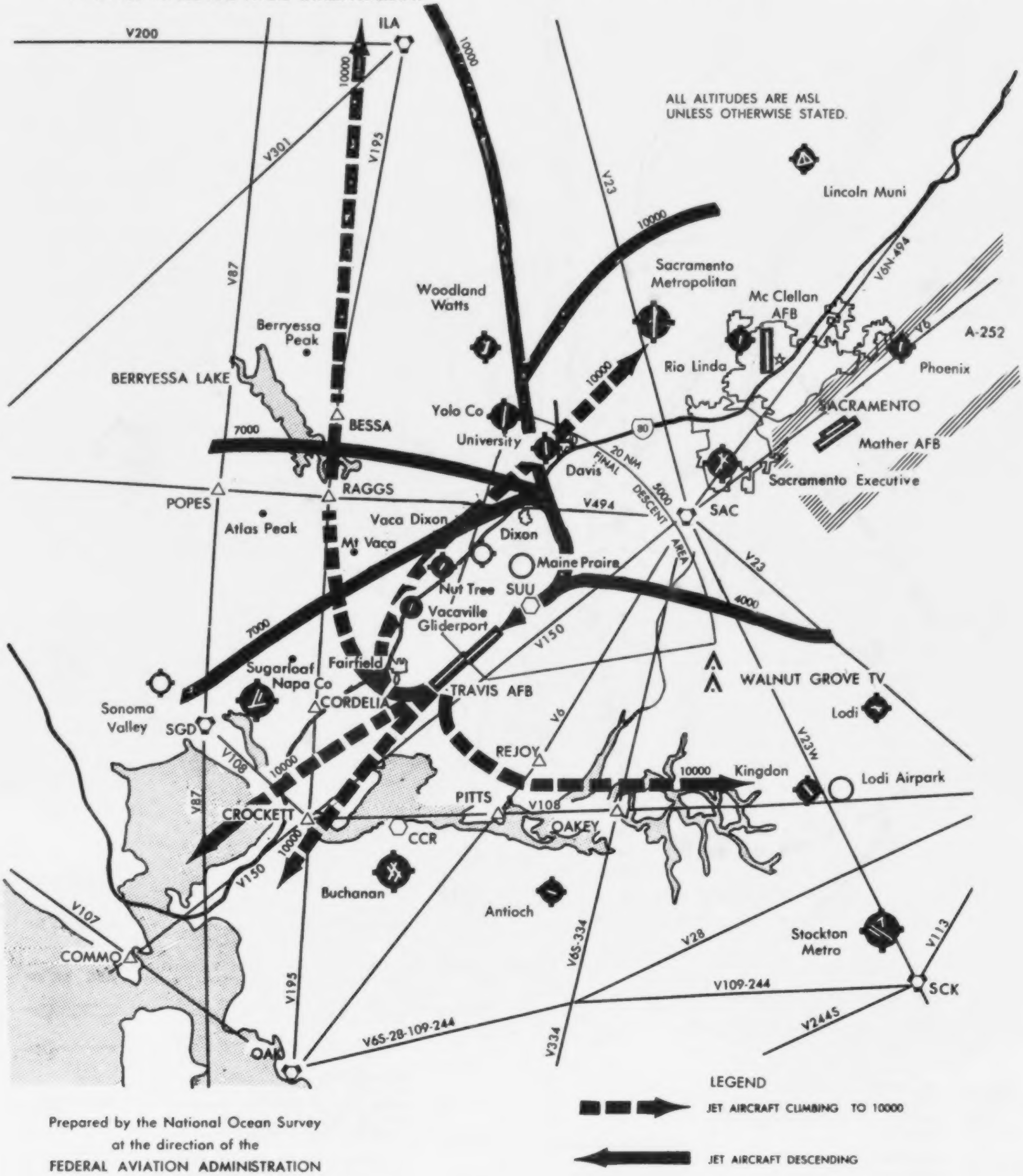
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

14 JAN 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FAIRFIELD, TRAVIS AFB, CALIF.

THIS CHART SHOWS CONCENTRATED IFR TRAFFIC FLOWS IN THE TRAVIS AFB AREA. IT HAS BEEN PREPARED TO ASSIST VFR PILOTS IN PLANNING FLIGHT IN THE AREA. VFR PILOTS INTENDING TO OPERATE IN THE AREA ARE ENCOURAGED TO CONTACT TRAVIS APPROACH CONTROL ON 119.9 OR 126.6 MHz FOR RADAR TRAFFIC ADVISORY SERVICE, WHICH WILL BE PROVIDED ON A WORKLOAD PERMITTING BASIS. TRAFFIC ADVISORY SERVICE DOES NOT RELEIVE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.


ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.
V200
ILA
10000
V195
V301
V87
V23
Lincoln Muni
V6N-494
Woodland
Watts
Sacramento
Metropolitan
Mc Clellan
AFB
A-252
V6
Phoenix
Berryessa
Peak
BERRYESSA LAKE
Rio Linda
Yolo Co
SACRAMENTO
BESSA
7000
University
80
Mather AFB
Davis
20 NM
FINAL
5000
DESCENT
AREA
Sacramento Executive
POPES
RAGGS
V494
SAC
Atlas Peak
Vaca Dixon
Dixon
Mt Vaca
Maine Praire
Nut Tree
SUU
Vacaville
Gliderport
4000
V150
Fairfield
Sugarloaf
Napa Co
TRAVIS AFB
WALNUT GROVE TV
Sonoma
Valley
SGD
CORDELIA
V6
Lodi
V108
REJOY
V23W
Kingdon
Lodi Airpark
PITTS
CROCKETT
CCR
OAKEY
Buchanan
Antioch
V107
V65-334
V28
Stockton
Metro
V113
COMMO
V109-244
SCK
V244S
OAK
V65-28-109-244
V334
LEGEND
JET AIRCRAFT CLIMBING TO 10000
JET AIRCRAFT DESCENDING

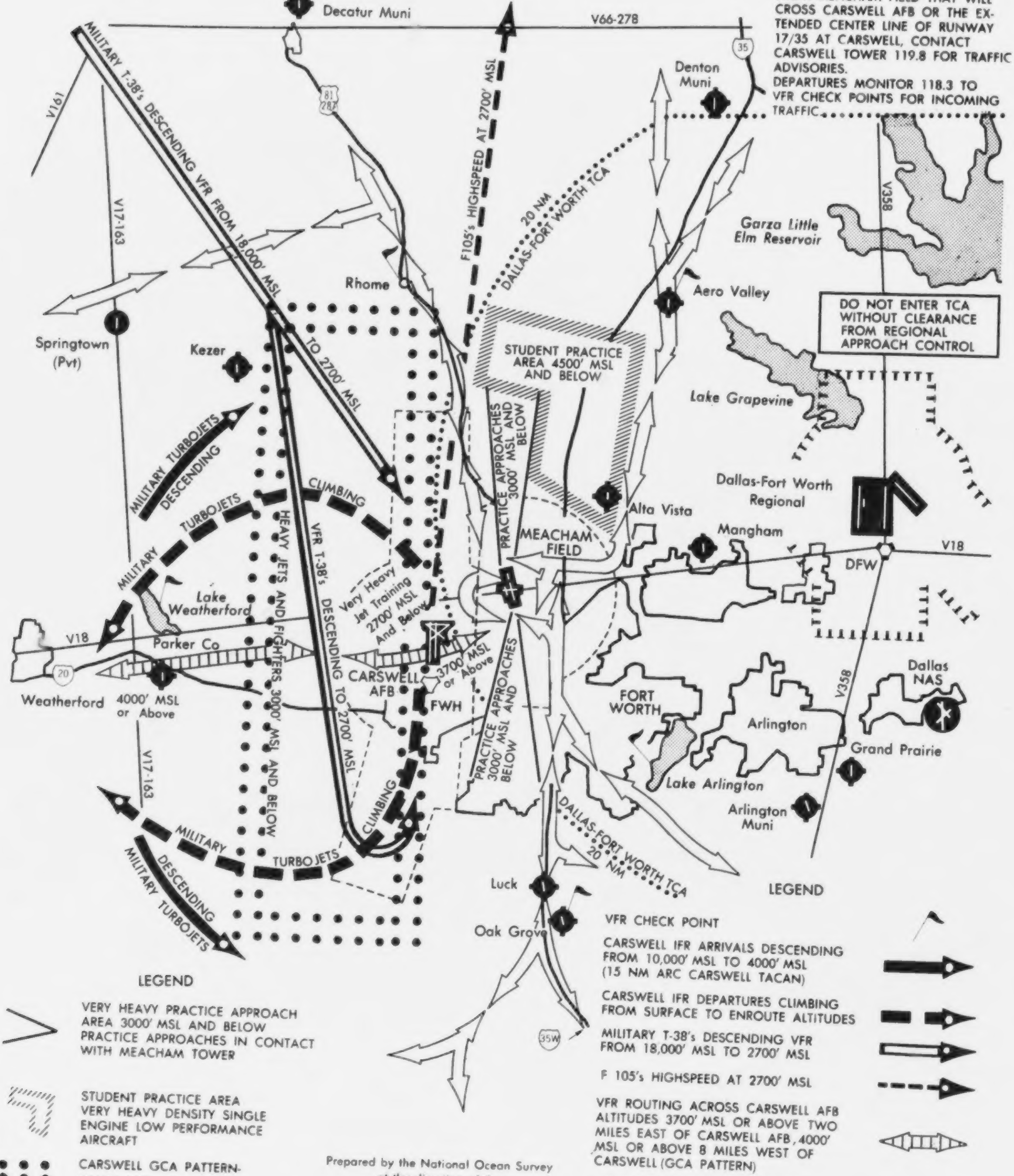
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FORT WORTH, TEXAS
MEACHAM FIELD, CARSWELL AFB

AIRCRAFT REQUESTING RADAR ADVISORIES CONTACT REGIONAL APPROACH CONTROL 120.5.
ALL AIRCRAFT OPERATING TO AND FROM MEACHAM FIELD THAT WILL CROSS CARSWELL AFB OR THE EXTENDED CENTER LINE OF RUNWAY 17/35 AT CARSWELL, CONTACT CARSWELL TOWER 119.8 FOR TRAFFIC ADVISORIES.
DEPARTURES MONITOR 118.3 TO VFR CHECK POINTS FOR INCOMING TRAFFIC.


Decatur Muni
V66-278
35
81
287
Denton Muni
V161
V17-163
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL
TO 2700' MSL
F105's HIGHSPEED AT 2700' MSL
20 NM
DALLAS-FORT WORTH TCA
V358
Garza Little Elm Reservoir
Rhome
Aero Valley
Springtown (Pvt)
Kezer
DO NOT ENTER TCA WITHOUT CLEARANCE FROM REGIONAL APPROACH CONTROL
STUDENT PRACTICE AREA 4500' MSL AND BELOW
Lake Grapevine
PRACTICE APPROACHES 3000' MSL AND BELOW
MILITARY TURBOJETS DESCENDING
MILITARY TURBOJETS
CLIMBING
HEAVY JETS AND FIGHTERS 3000' MSL AND BELOW
VFR T-38's DESCENDING TO 2700' MSL
Alta Vista
Dallas-Fort Worth Regional
MEACHAM FIELD
Mangham
V18
DFW
Very Heavy Jet Training 2700' MSL And Below
Lake Weatherford
V18
Parker Co
3700' MSL or Above
20
Weatherford
4000' MSL or Above
CARSWELL AFB
FWH
FORT WORTH
Arlington
V358
Dallas NAS
Grand Prairie
PRACTICE APPROACHES 3000' MSL AND BELOW
Lake Arlington
V17-163
Arlington Muni
CLIMBING
MILITARY
TURBOJETS
DALLAS-FORT WORTH TCA
20 NM
MILITARY DESCENDING
MILITARY TURBOJETS
Luck
Oak Grove
35W

LEGEND

>	VERY HEAVY PRACTICE APPROACH AREA 3000' MSL AND BELOW PRACTICE APPROACHES IN CONTACT WITH MEACHAM TOWER
▨	STUDENT PRACTICE AREA VERY HEAVY DENSITY SINGLE ENGINE LOW PERFORMANCE AIRCRAFT
• • •	CARSWELL GCA PATTERN-HEAVY JETS AT 3000' MSL

LEGEND

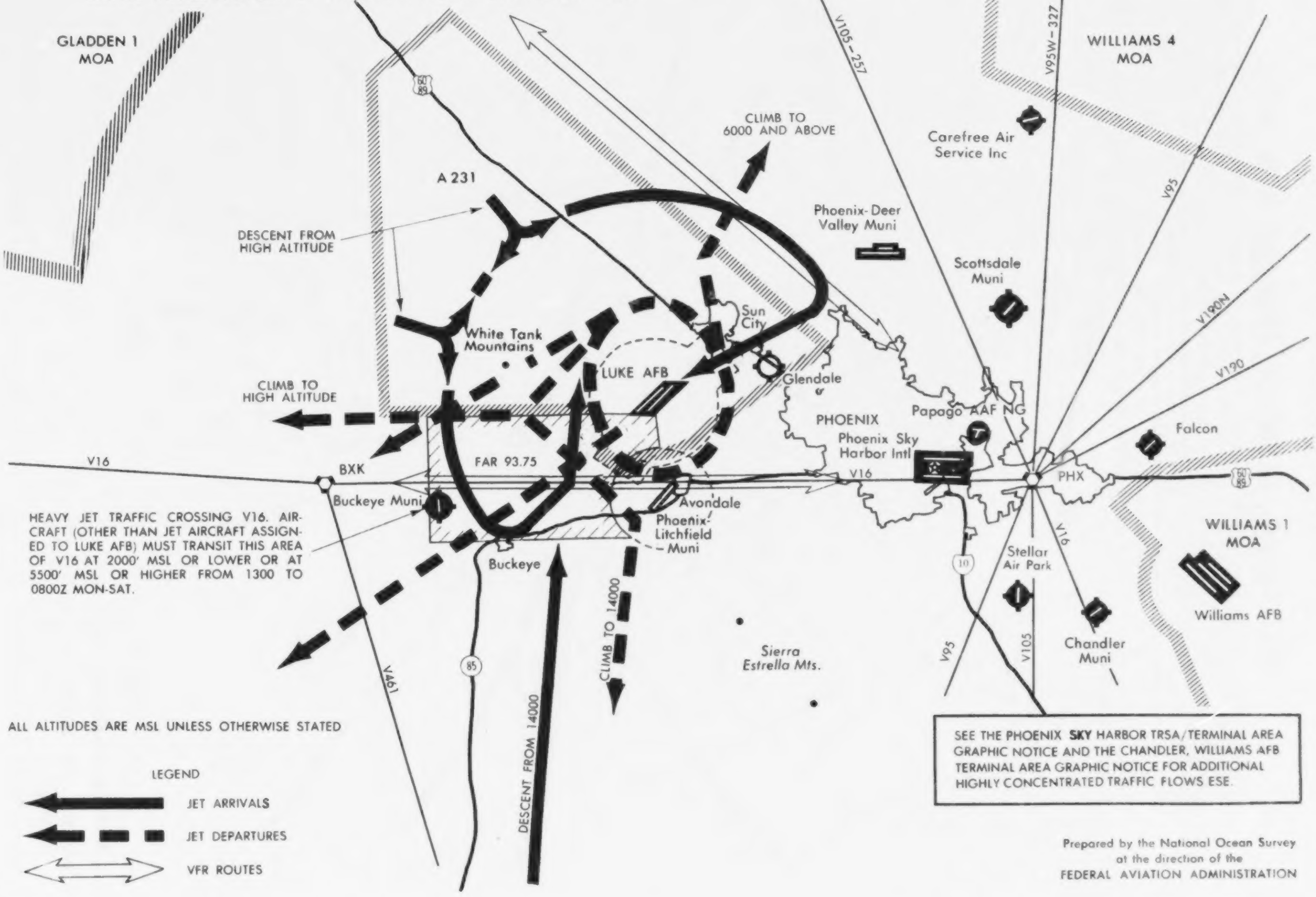
VFR CHECK POINT	⚑
CARSWELL IFR ARRIVALS DESCENDING FROM 10,000' MSL TO 4000' MSL (15 NM ARC CARSWELL TACAN)	➡
CARSWELL IFR DEPARTURES CLIMBING FROM SURFACE TO ENROUTE ALTITUDES	▬ ▬➡
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL TO 2700' MSL	⇨
F 105's HIGHSPEED AT 2700' MSL	- - -➡
VFR ROUTING ACROSS CARSWELL AFB ALTITUDES 3700' MSL OR ABOVE TWO MILES EAST OF CARSWELL AFB, 4000' MSL OR ABOVE 8 MILES WEST OF CARSWELL (GCA PATTERN)	⟺
RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTES FOR MEACHAM FIELD.	⇔

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

GLENDALE, LUKE AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LUKE AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 126.8.


GLADDEN 1 MOA
A 231
DESCENT FROM HIGH ALTITUDE
CLIMB TO 6000 AND ABOVE
V105-257
V95W-327
WILLIAMS 4 MOA
Carefree Air Service Inc
Phoenix-Deer Valley Muni
Scottsdale Muni
V95
V190N
V190
White Tank Mountains
Sun City
LUKE AFB
Glendale
PHOENIX
Papago AAF NG
Phoenix Sky Harbor Intl
Falcon
CLIMB TO HIGH ALTITUDE
V16
BXK
FAR 93.75
PHX
60 89
Buckeye Muni
Avondale
Phoenix-Litchfield Muni
Buckeye
WILLIAMS 1 MOA
Stellar Air Park
10
V16
Williams AFB
CLIMB TO 14000
Sierra Estrella Mts.
V95
V105
Chandler Muni
85
V461
DESCENT FROM 14000
LEGEND
JET ARRIVALS
JET DEPARTURES
VFR ROUTES

HEAVY JET TRAFFIC CROSSING V16. AIRCRAFT (OTHER THAN JET AIRCRAFT ASSIGNED TO LUKE AFB) MUST TRANSIT THIS AREA OF V16 AT 2000′ MSL OR LOWER OR AT 5500′ MSL OR HIGHER FROM 1300 TO 0800Z MON-SAT.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

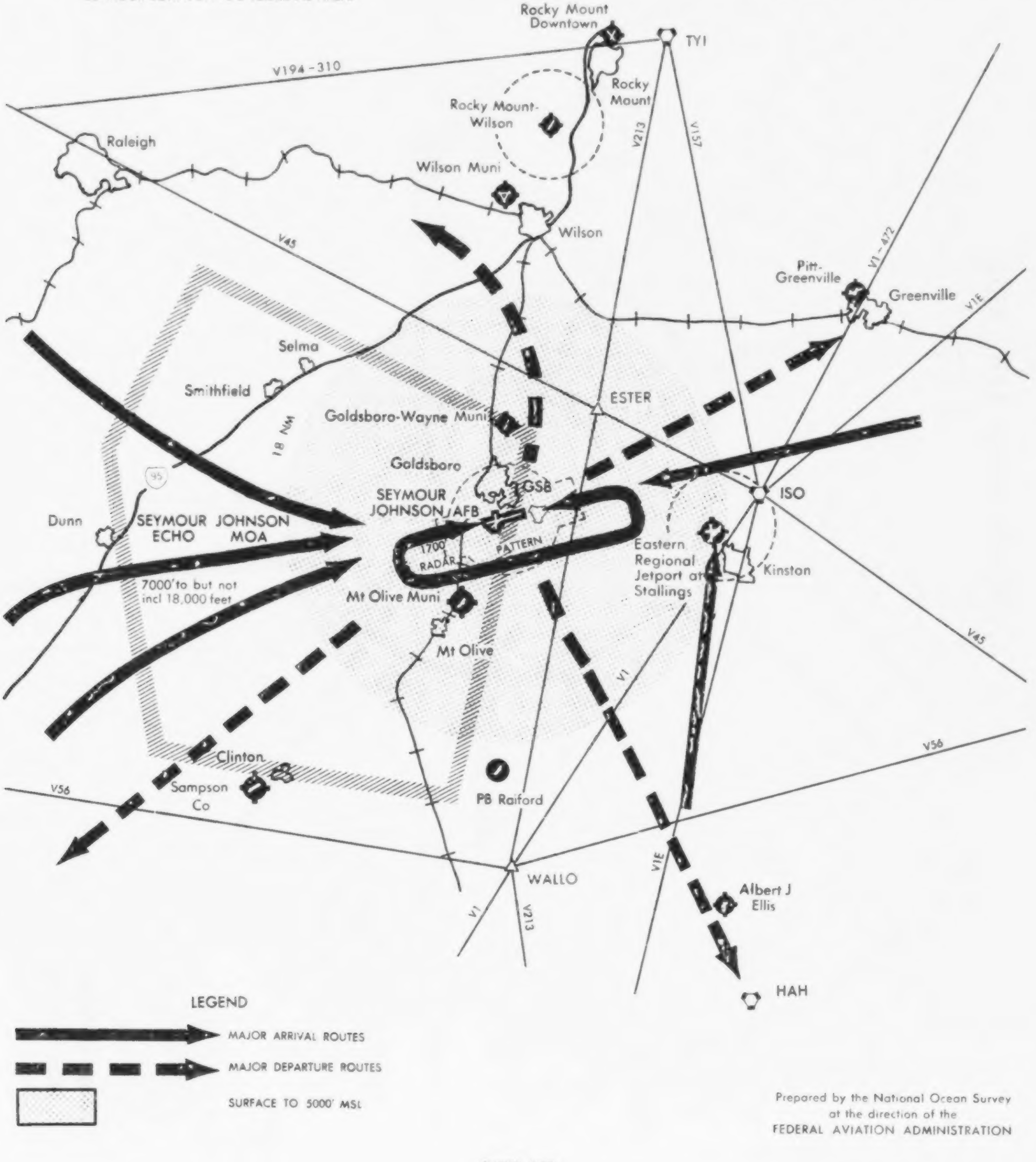
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

GOLDSBORO, SEYMOUR JOHNSON AFB, N.C.

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE AIRCRAFT TRAFFIC IN THE VICINITY OF SEYMOUR JOHNSON AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST OF KC/EC-135's, B-52's F-4's, AND T38's. WITHIN 18 NM OF THE SEYMOUR JOHNSON TACAN, AIRCRAFT OPERATE FROM 1700 TO 5000 FT. MSL. THE RADAR ARRIVAL PATTERN IS NORMALLY ON THE SOUTH SIDE OF THE RUNWAY. AIRCRAFT ARE AT 1700 FT MSL ON THE DOWNWIND AND BASE LEG. THE SEYMOUR JOHNSON ECHO MOA IS USED BY F-4's AND T38's IN VFR CONDITIONS. AIRCRAFT IN THIS AREA OPERATE FROM 7000 FT. MSL TO FL 200 WITH ATC APPROVAL. IT IS SUGGESTED THAT VFR AIRCRAFT TRANSITING THE AREA AND ARRIVING/DEPARTING GOLDSBORO-WAYNE MUNICIPAL AIRPORT, MT. OLIVE MUNICIPAL AIRPORT, AND STALLINGS FIELD CONTACT SEYMOUR JOHNSON APPROACH CONTROL ON 119.7 MHZ/338.6 MHZ FOR TRAFFIC ADVISORIES. RECOMMEND THAT VFR TRAFFIC USE ROUTES AND ALTITUDES TO AVOID THE DEPICTED AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE TRAFFIC IN THE SEYMOUR JOHNSON AFB TERMINAL AREA.


Rocky Mount Downtown
TYI
V194-310
Rocky Mount
Rocky Mount-Wilson
V213
V157
Raleigh
Wilson Muni
Wilson
V45
Pitt-Greenville
Greenville
V1-472
V1E
Selma
Smithfield
18 NM
ESTER
Goldsboro-Wayne Muni
Goldsboro
95
SEYMOUR JOHNSON AFB
GSB
ISO
Dunn
SEYMOUR JOHNSON ECHO MOA
7000' to but not incl 18,000 feet
1700 RADAR PATTERN
Eastern Regional Jetport at Stallings
Kinston
Mt Olive Muni
Mt Olive
V1
V45
V56
Clinton
Sampson Co
PB Raiford
V56
WALLO
V1
V213
V1E
Albert J Ellis
HAH
LEGEND
MAJOR ARRIVAL ROUTES
MAJOR DEPARTURE ROUTES
SURFACE TO 5000' MSL

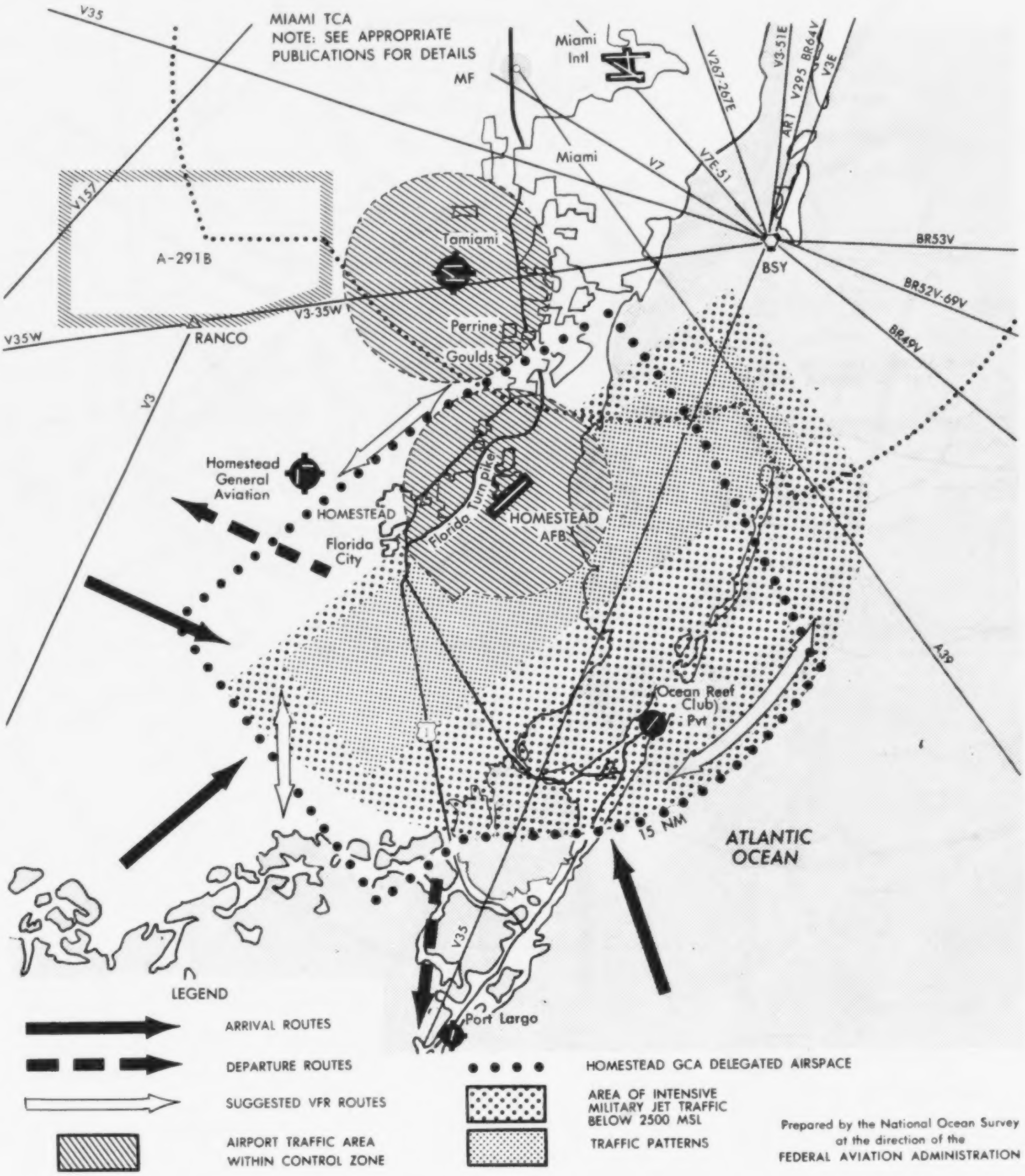
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOMESTEAD AFB, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE MILITARY JET OPERATIONS IN THE VICINITY OF HOMESTEAD AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST PRIMARILY OF F-4s AND HELICOPTERS. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT HOMESTEAD GCA ON 123.8 OR HOMESTEAD TOWER ON 126.2 STAGE II SERVICE IS AVAILABLE FOR AIRCRAFT ARRIVING HOMESTEAD AFB.

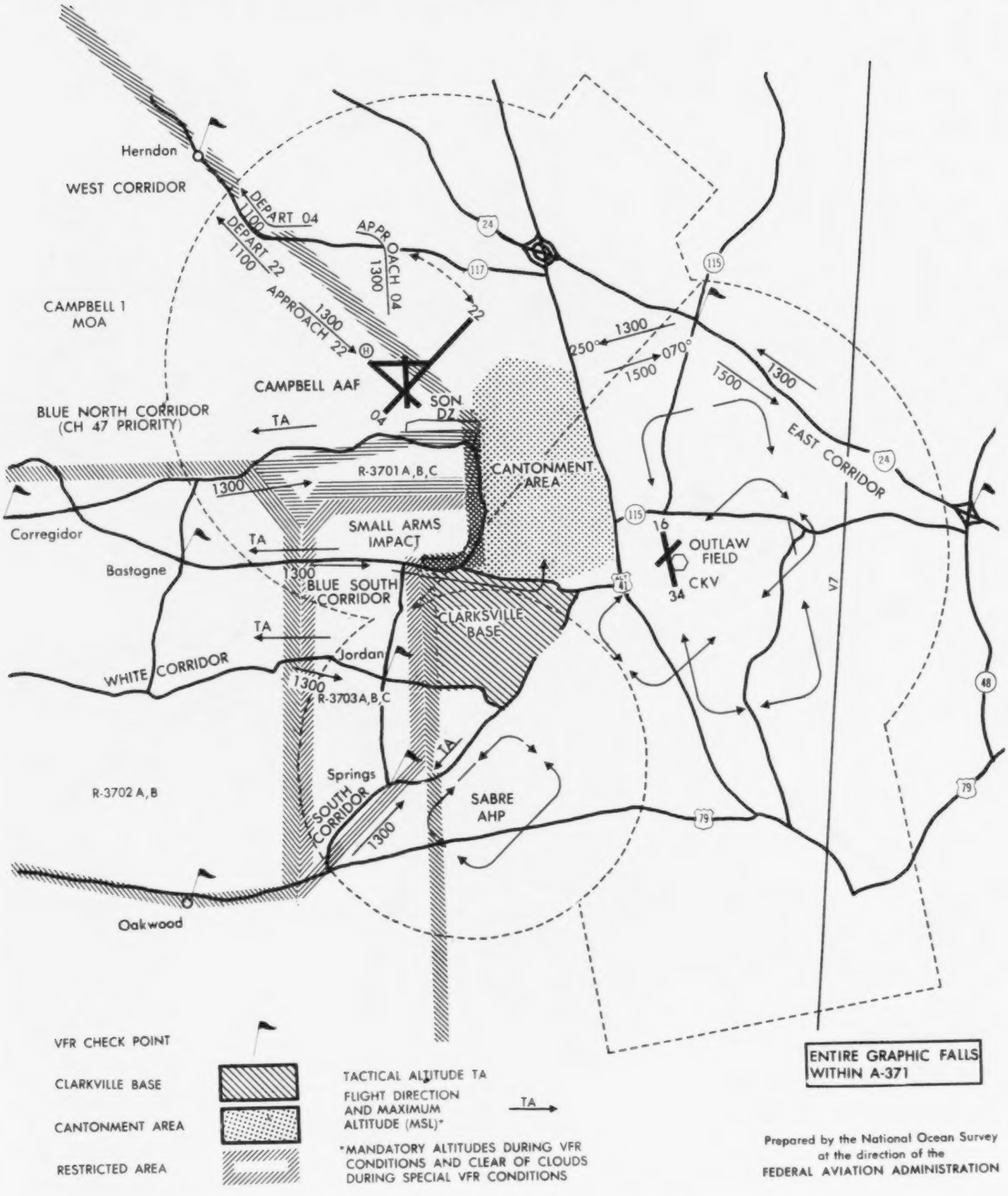

V35
MIAMI TCA
NOTE: SEE APPROPRIATE PUBLICATIONS FOR DETAILS
MF
Miami Intl
V267-267E
V3-51E
AR1
V295
BR64V
V3E
Miami
V7
V7E-51
V157
A-291B
Tamiami
BSY
BR53V
BR52V-69V
BR49V
V3-35W
V35W
RANCO
Perrine
Goulds
V3
Homestead General Aviation
HOMESTEAD
Florida Turnpike
HOMESTEAD AFB
Florida City
A39
1
Ocean Reef Club Pvt
15 NM
ATLANTIC OCEAN
V35
Port Largo
LEGEND
ARRIVAL ROUTES
DEPARTURE ROUTES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA WITHIN CONTROL ZONE
HOMESTEAD GCA DELEGATED AIRSPACE
AREA OF INTENSIVE MILITARY JET TRAFFIC BELOW 2500 MSL
TRAFFIC PATTERNS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

5 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOPKINSVILLE, CAMPBELL AAF, KY.
VFR/SPECIAL VFR MILITARY HELICOPTER ROUTES
FORT CAMPBELL, KY. AREA

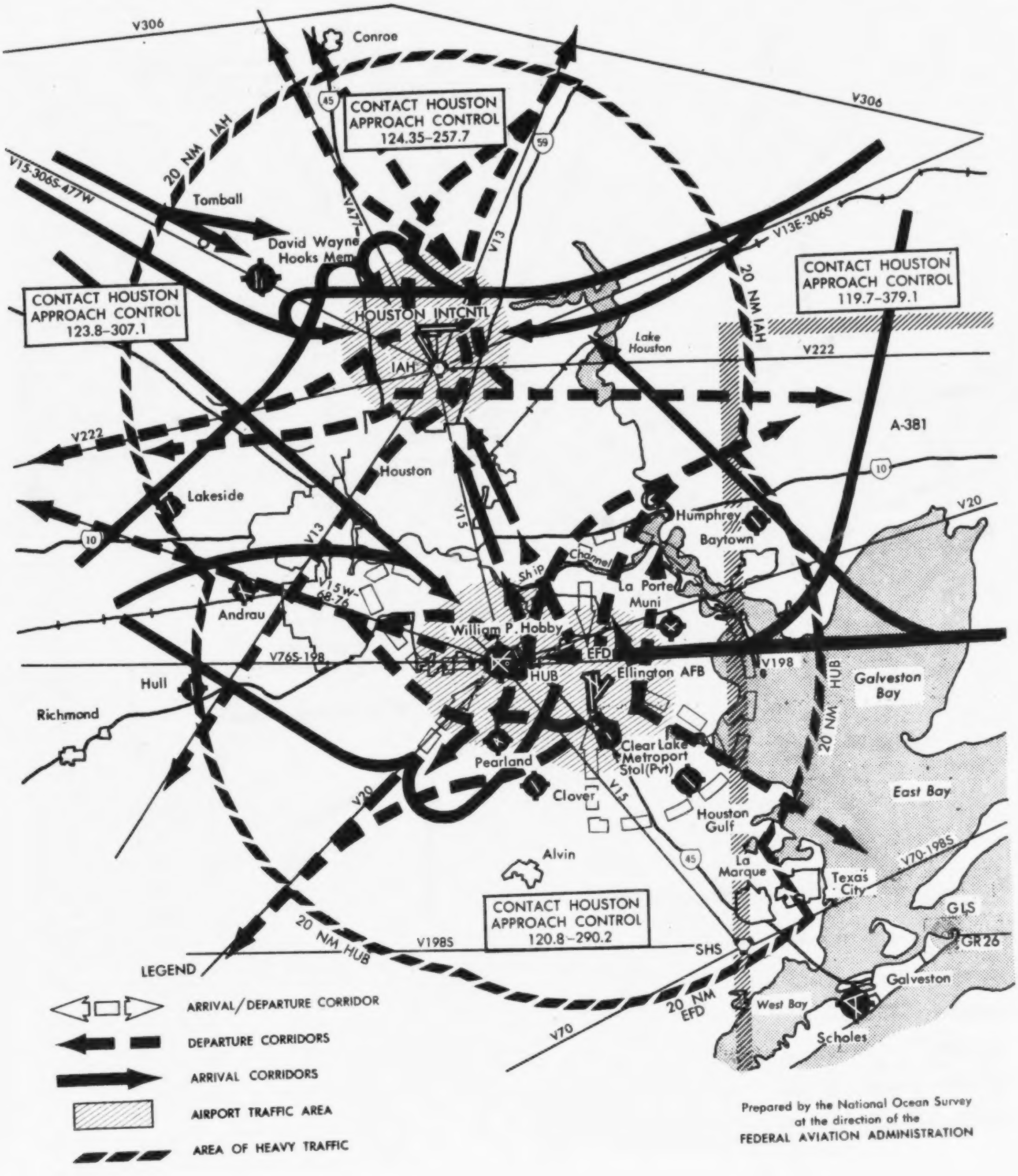

Herndon
WEST CORRIDOR
DEPART 04
1100
DEPART 22
1100
APPROACH 04
1300
APPROACH 22
1300
24
117
22
115
CAMPBELL 1
MOA
CAMPBELL AAF
04
SON
DZ
BLUE NORTH CORRIDOR
(CH 47 PRIORITY)
TA
250°
1300
070°
1500
1500
1300
EAST CORRIDOR
24
R-3701 A, B, C
CANTONMENT
AREA
1300
Corregidor
SMALL ARMS
IMPACT
TA
Bastogne
1300
BLUE SOUTH
CORRIDOR
115
16
OUTLAW
FIELD
CKV
34
41
CLARKSVILLE
BASE
TA
V7
Jordan
WHITE CORRIDOR
1300
R-3703 A, B, C
48
TA
Springs
R-3702 A, B
SOUTH
CORRIDOR
1300
SABRE
AHP
79
79
Oakwood
ENTIRE GRAPHIC FALLS
WITHIN A-371
VFR CHECK POINT
CLARKVILLE BASE
CANTONMENT AREA
RESTRICTED AREA
TACTICAL ALTITUDE TA
FLIGHT DIRECTION
AND MAXIMUM
ALTITUDE (MSL)*
TA
*MANDATORY ALTITUDES DURING VFR
CONDITIONS AND CLEAR OF CLOUDS
DURING SPECIAL VFR CONDITIONS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOUSTON, TEXAS

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE ROUTES SERVING THE HOUSTON TERMINAL AREA FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS ARE ENCOURAGED TO CONTACT HOUSTON APPROACH CONTROL FOR TRAFFIC ADVISORY SERVICE.


V306
Conroe
CONTACT HOUSTON APPROACH CONTROL 124.35–257.7
V306
20 NM IAH
V15-306S-477W
Tomball
David Wayne Hooks Mem
V477
V13
59
45
V13E-306S
CONTACT HOUSTON APPROACH CONTROL 119.7–379.1
CONTACT HOUSTON APPROACH CONTROL 123.8–307.1
HOUSTON INTCNTL
IAH
Lake Houston
20 NM IAH
V222
V222
A-381
Houston
10
Lakeside
10
V13
V15
Humphrey
Baytown
V20
Ship Channel
La Porte Muni
V15W-68-76
Andrau
William P. Hobby
EFD
V76S-198
HUB
Ellington AFB
V198
Hull
20 NM HUB
Galveston Bay
Richmond
Clear Lake Metroport Stol(Pvt)
Pearland
Clover
V15
V20
Houston Gulf
East Bay
Alvin
45
La Marque
Texas City
V70-198S
GLS
GR26
CONTACT HOUSTON APPROACH CONTROL 120.8–290.2
20 NM HUB
V198S
SHS
Galveston
LEGEND
20 NM EFD
West Bay
V70
Scholes
ARRIVAL/DEPARTURE CORRIDOR
DEPARTURE CORRIDORS
ARRIVAL CORRIDORS
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

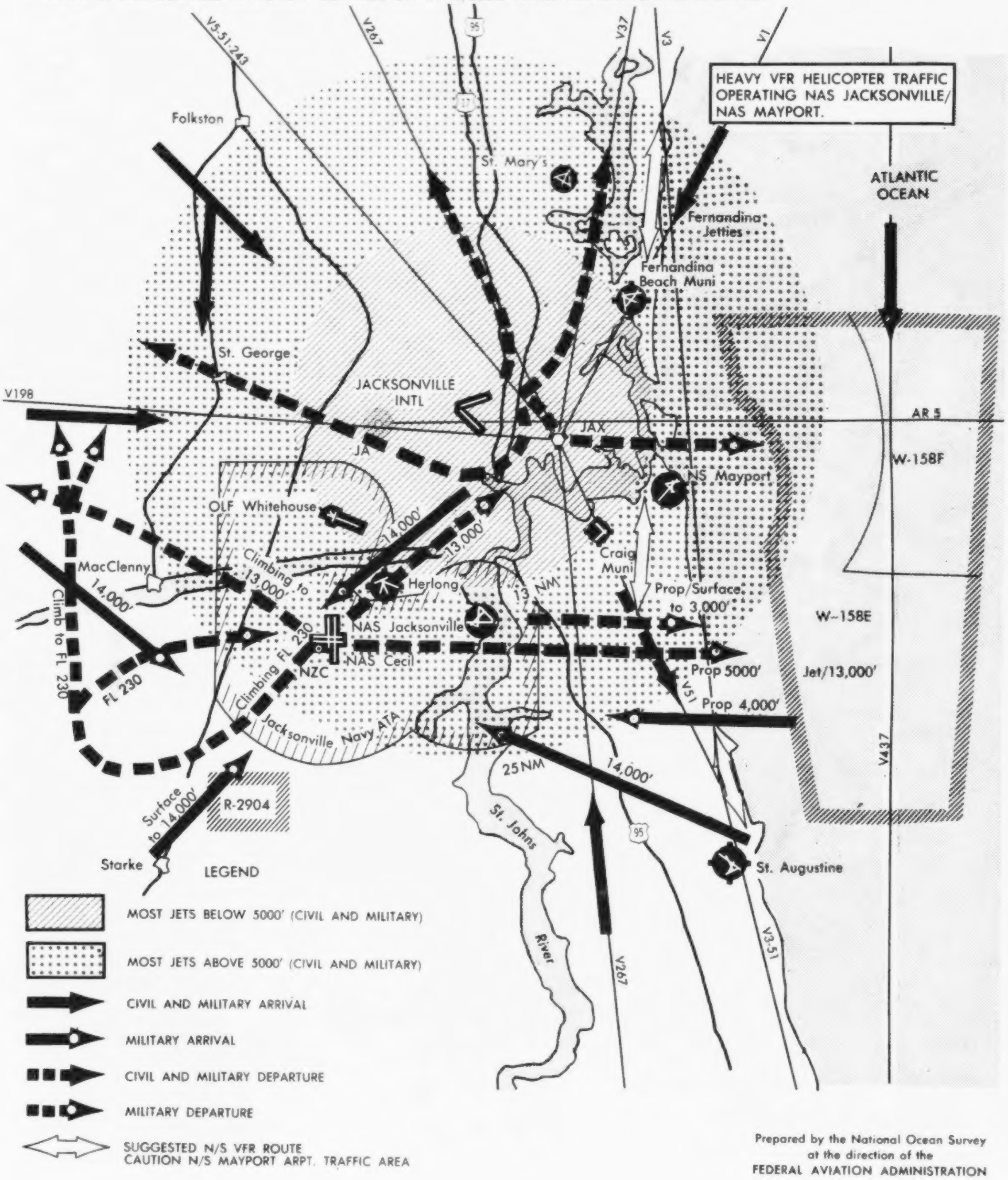
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE INTL. AIRPORT, JACKSONVILLE, FLORIDA

THIS GRAPHIC SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE JACKSONVILLE TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT JACKSONVILLE APPROACH CONTROL ON 119.0/335.6 WHILE TRANSITING THIS AIRSPACE.

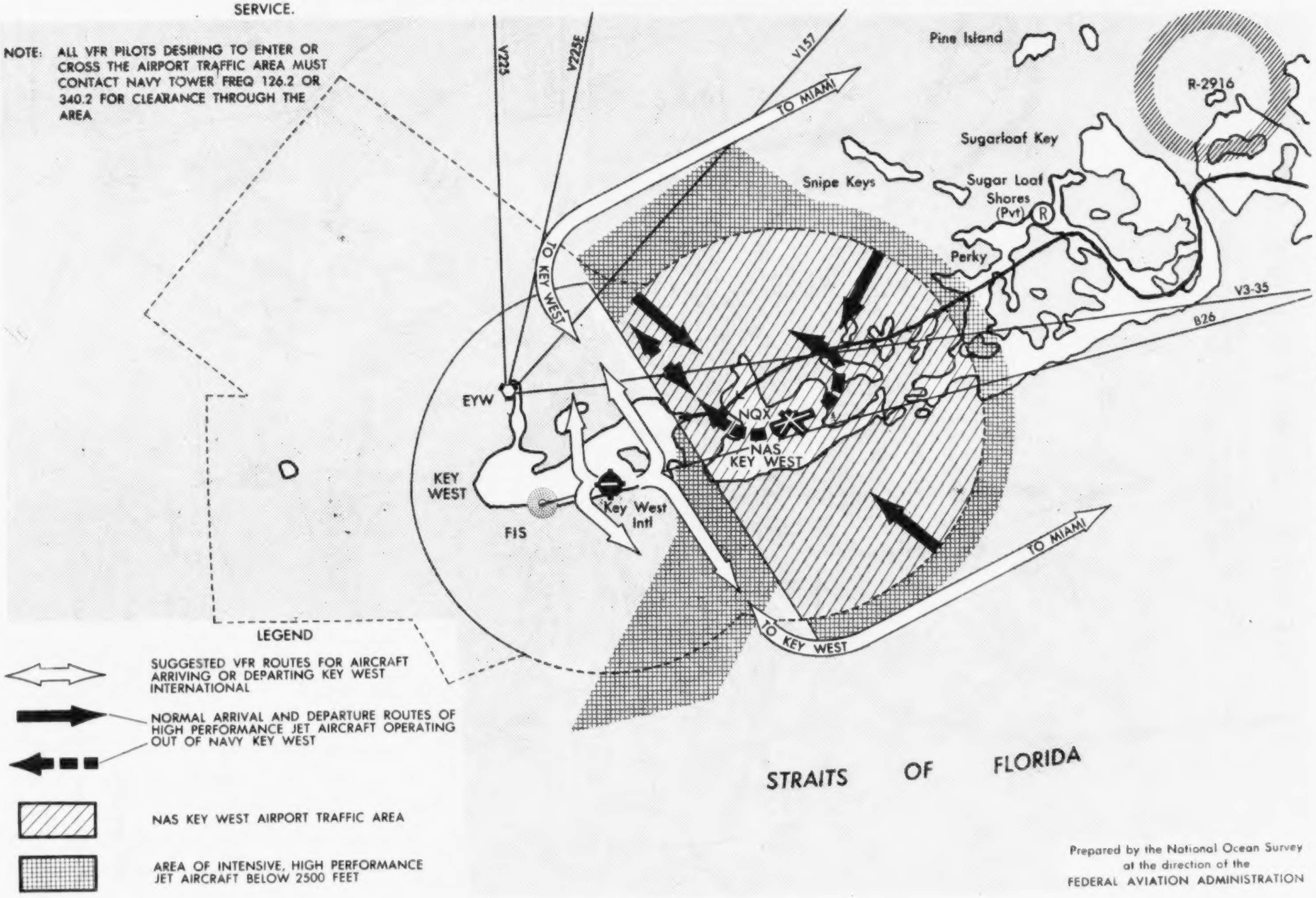

V5,51,243
V267
95
V37
V3
V1
HEAVY VFR HELICOPTER TRAFFIC OPERATING NAS JACKSONVILLE/ NAS MAYPORT.
Folkston
St. Mary's
ATLANTIC OCEAN
Fernandina Jetties
Fernandina Beach Muni
St. George
JACKSONVILLE INTL
V198
JAX
AR 5
JA
W-158F
NS Mayport
OLF Whitehouse
14,000'
13,000'
Craig Muni
MacClenny
Climbing to 13,000'
Herlong
13 NM
Prop/Surface to 3,000'
14,000'
Climb to FL 230
NAS Jacksonville
W-158E
NAS Cecil
NZC
Climbing FL 230
Prop 5000'
Jet/13,000'
FL 230
V51
Prop 4,000'
Jacksonville Navy ATA
25 NM
14,000'
V437
Surface to 14,000'
R-2904
St. Johns River
95
St. Augustine
Starke
V267
V3-51
LEGEND
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL
CIVIL AND MILITARY DEPARTURE
MILITARY DEPARTURE
SUGGESTED N/S VFR ROUTE
CAUTION N/S MAYPORT ARPT. TRAFFIC AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

22 FEB 1979

KEY WEST NAS, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE JET OPERATIONS IN THE VICINITY OF KEY WEST. MILITARY AIRCRAFT CONSIST PRIMARILY OF A-4, F-4, AND A-5 TYPE AIRCRAFT. ALL VFR PILOTS OPERATING IN THE KEY WEST AREA ARE ENCOURAGED TO CONTACT KEY WEST APPROACH ON 118.7 OR 263.6 FOR RADAR ADVISORY SERVICE.



NOTE: ALL VFR PILOTS DESIRING TO ENTER OR CROSS THE AIRPORT TRAFFIC AREA MUST CONTACT NAVY TOWER FREQ 126.2 OR 340.2 FOR CLEARANCE THROUGH THE AREA

V225
V225E
V157
TO MIAMI
TO KEY WEST
Pine Island
R-2916
Sugarloaf Key
Snipe Keys
Sugar Loaf Shores (Pvt)
R
Perky
V3-35
B26
EYW
NQX
NAS KEY WEST
KEY WEST
Key West Intl
FIS
TO MIAMI
TO KEY WEST
STRAITS OF FLORIDA

LEGEND

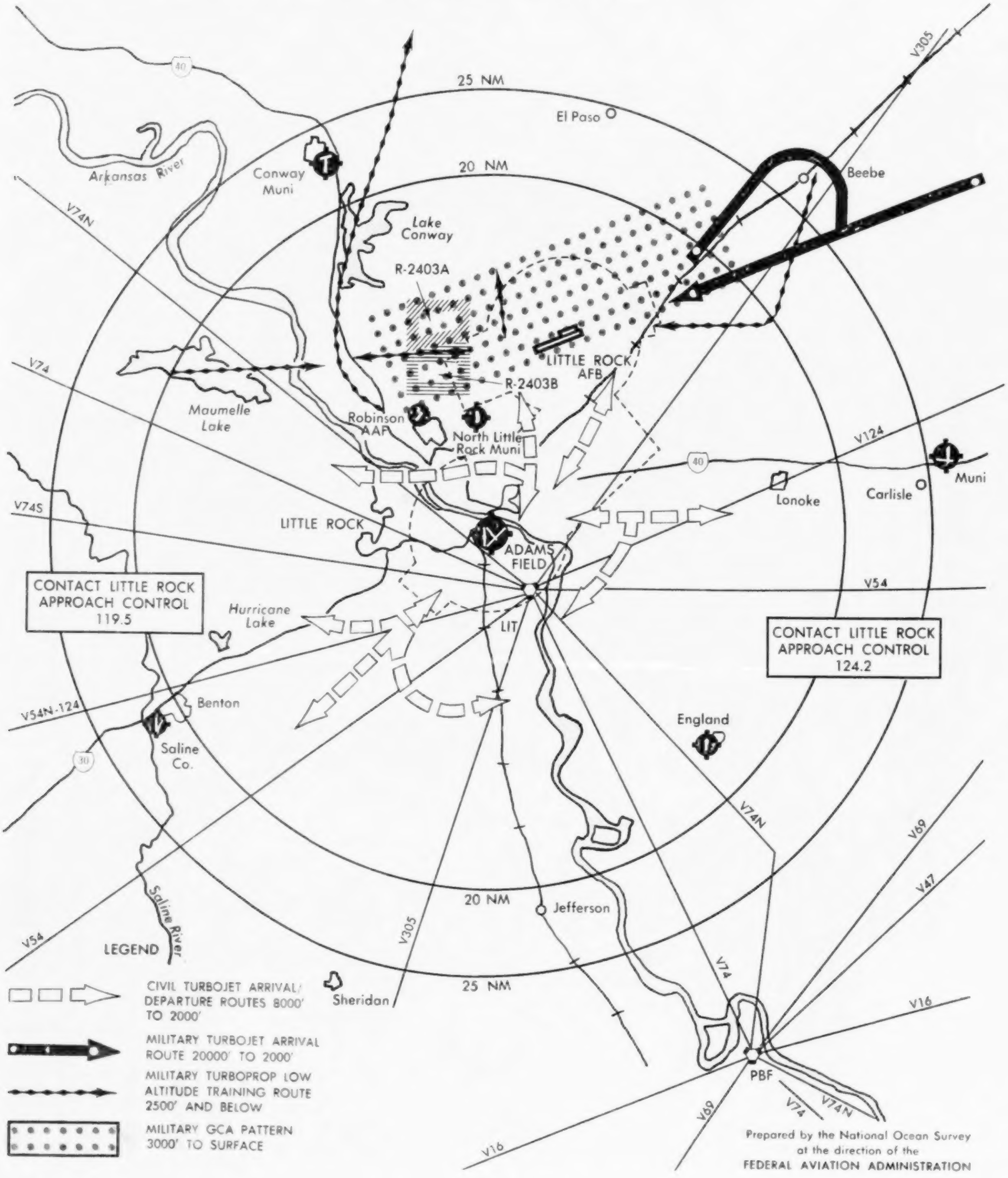
- ⇔ SUGGESTED VFR ROUTES FOR AIRCRAFT ARRIVING OR DEPARTING KEY WEST INTERNATIONAL
- ➡ ⬅ ■ ■ NORMAL ARRIVAL AND DEPARTURE ROUTES OF HIGH PERFORMANCE JET AIRCRAFT OPERATING OUT OF NAVY KEY WEST
- ▨ NAS KEY WEST AIRPORT TRAFFIC AREA
- ▦ AREA OF INTENSIVE, HIGH PERFORMANCE JET AIRCRAFT BELOW 2500 FEET

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK ADAMS FIELD/AFB, ARKANSAS

THIS CHART SHOWS AREAS OF IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LITTLE ROCK AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT LITTLE ROCK APPROACH FOR TRAFFIC ADVISORIES.

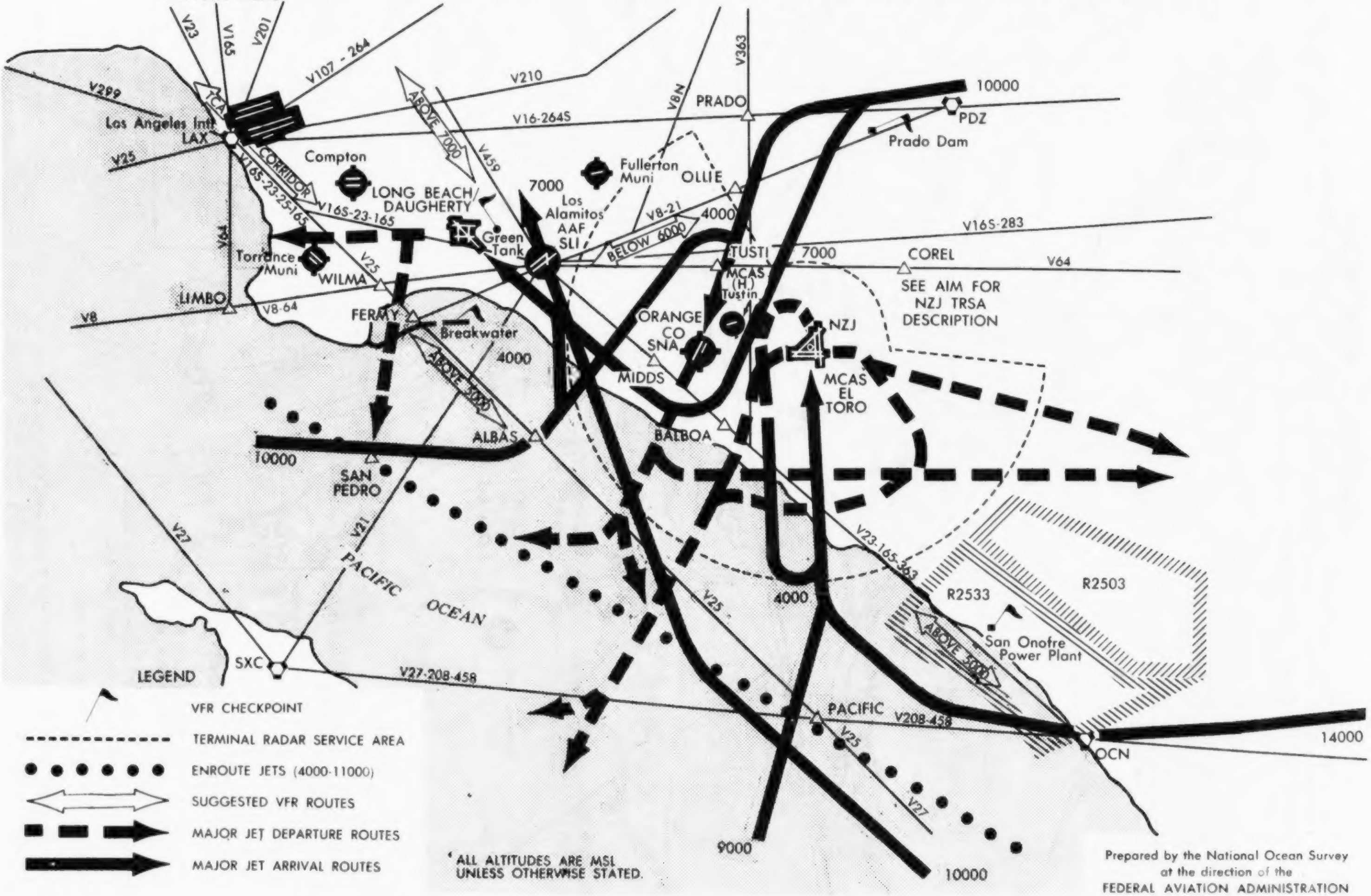

25 NM
20 NM
40
V305
El Paso
Beebe
Arkansas River
Conway Muni
V74N
Lake Conway
R-2403A
R-2403B
LITTLE ROCK AFB
V74
Maumelle Lake
Robinson AAF
North Little Rock Muni
40
V124
Carlisle
Muni
Lonoke
V74S
LITTLE ROCK
ADAMS FIELD
V54
CONTACT LITTLE ROCK APPROACH CONTROL 119.5
Hurricane Lake
LIT
CONTACT LITTLE ROCK APPROACH CONTROL 124.2
V54N-124
Benton
Saline Co.
30
England
V74N
V69
V47
Saline River
20 NM
Jefferson
V54
LEGEND
V305
V74
25 NM
Sheridan
V16
PBF
V69
V74
V74N
V16
CIVIL TURBOJET ARRIVAL/DEPARTURE ROUTES 8000' TO 2000'
MILITARY TURBOJET ARRIVAL ROUTE 20000' TO 2000'
MILITARY TURBOPROP LOW ALTITUDE TRAINING ROUTE 2500' AND BELOW
MILITARY GCA PATTERN 3000' TO SURFACE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

LONG BEACH/DAUGHERTY - ORANGE COUNTY - EL TORO, CALIFORNIA

THIS CHART, DEPICITING THE IFR ROUTES WITHIN THE COAST APPROACH CONTROL AIRSPACE, IS TO ASSIST PILOTS IN PLANNING FLIGHTS INTO AND THROUGH THE AREA. STAGE II SERVICE TO LONG BEACH AIRPORT, AND TRAFFIC ADVISORY SERVICE IS AVAILABLE ON THE FOLLOWING FREQUENCIES: NORTH AND EAST OF SEAL BEACH VOR-121.3; SOUTH-124.65; WEST-127.2. SOUTH EAST OF SANTA ANA VOR-124.1. STAGE III SERVICE IS AVAILABLE AT EL TORO MCAS


V23
V165
V201
V107 - 264
V299
TCA
Los Angeles Intl
LAX
V25
CORRIDOR
V165-23-25-165
V64
V210
ABOVE 7000
V16-264S
V459
V8N
V363
PRADO
10000
PDZ
Prado Dam
Compton
LONG BEACH/
DAUGHERTY
V165-23-165
Green
Tank
7000
Los
Alamitos
AAF
SLI
Fullerton
Muni
OLLIE
V8-21
BELOW 6000
4000
TUSTI
7000
V165-283
COREL
V64
MCAS
(H)
Tustin
SEE AIM FOR
NZJ TRSA
DESCRIPTION
Torrance
Muni
WILMA
V25
LIMBO
V8
V8-64
FERMY
Breakwater
ORANGE
CO
SNA
NZJ
4000
ABOVE 5000
MIDDS
MCAS
EL
TORO
ALBAS
BALBOA
10000
SAN
PEDRO
V21
V27
PACIFIC
OCEAN
V23-165-363
R2533
R2503
4000
V25
ABOVE 5000
San Onofre
Power Plant
SXC
V27-208-458
PACIFIC
V208-458
14000
OCN
V25
V27
9000
10000
LEGEND
VFR CHECKPOINT
TERMINAL RADAR SERVICE AREA
ENROUTE JETS (4000-11000)
SUGGESTED VFR ROUTES
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES

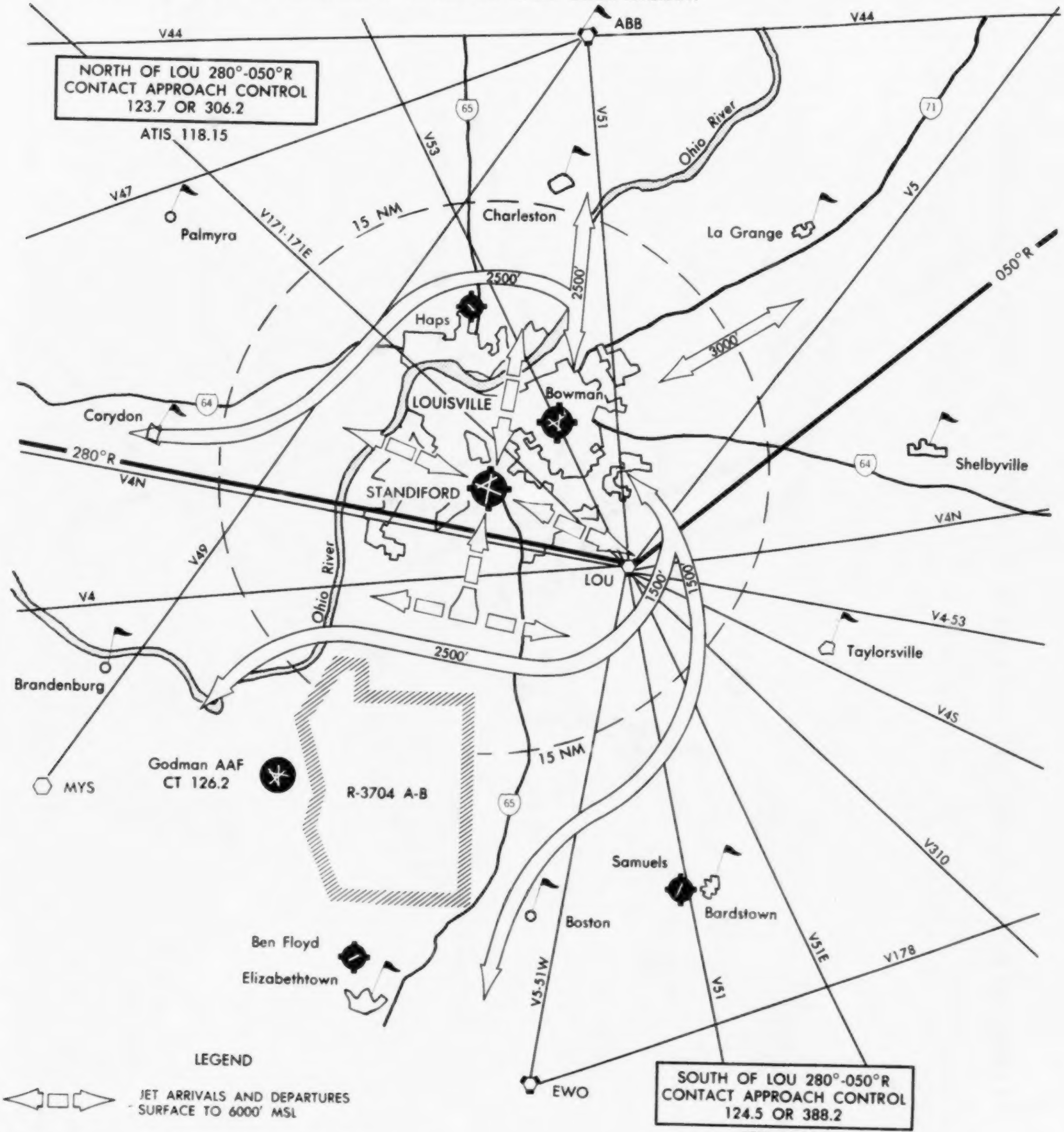
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY

THIS CHART SHOWS THE PRINCIPAL IFR JET TRAFFIC ROUTES. VFR PILOTS OPERATING IN THIS AREA ARE STRONGLY ENCOURAGED TO CONTACT STANDIFORD APPROACH CONTROL FOR TRAFFIC ADVISORIES. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.


NORTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
123.7 OR 306.2
ATIS 118.15
V44
ABB
V44
65
V53
V51
Ohio River
71
V47
V171-171E
15 NM
Charleston
La Grange
V5
050°R
Palmyra
2500'
2500'
Haps
3000'
LOUISVILLE
Bowman
Corydon
64
280°R
V4N
STANDIFORD
64
Shelbyville
V4N
V49
Ohio River
LOU
1500'
1500'
V4
V4-53
Taylorsville
2500'
Brandenburg
V4S
15 NM
Godman AAF
CT 126.2
MYS
R-3704 A-B
65
V310
Samuels
Bardstown
Boston
Ben Floyd
Elizabethtown
V5-51W
V51
V51E
V178
EWO
SOUTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
124.5 OR 388.2
ATIS 118.15

LEGEND

JET ARRIVALS AND DEPARTURES SURFACE TO 6000' MSL

RECOMMENDED VFR ROUTES FOR AIRCRAFT NOT IN CONTACT WITH SDF A/C

TRSA 2000' TO 6000' MSL

AIRCRAFT RECEIVING STAGE III SERVICE MAY EXPECT DIRECT ROUTINGS TO THE EXTENT POSSIBLE.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

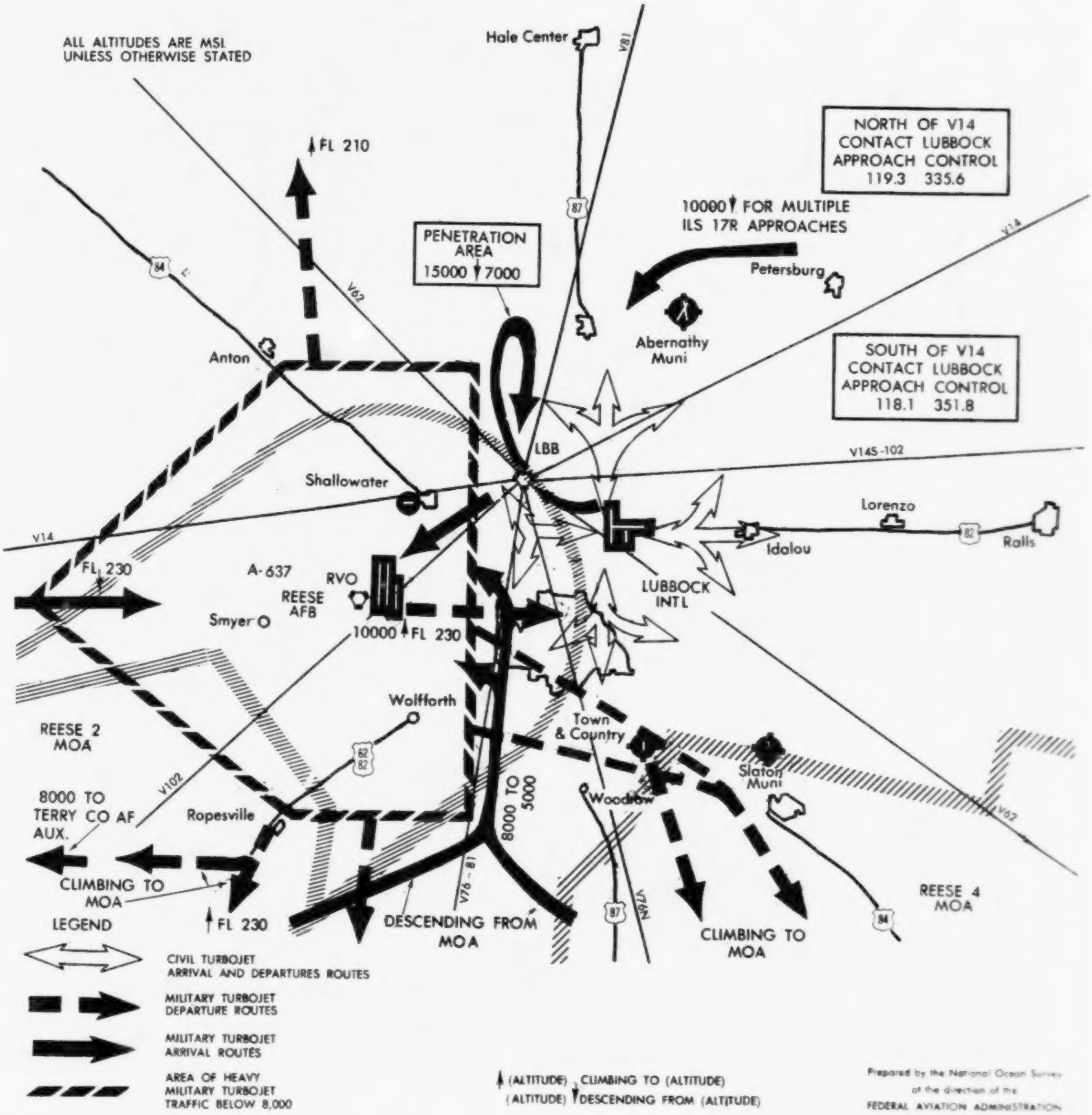
13 JUL 1978

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

LUBBOCK INTERNATIONAL, TEXAS

THIS CHART SHOWS AREAS OF CONCENTRATED TURBOJET IFR TRAFFIC AND AREAS WHICH CONTAIN A HIGH VOLUME OF TURBOJET OPERATIONS IN THE LUBBOCK/REESE AFB TERMINAL AREA. HIGH PERFORMANCE AIRCRAFT LANDING LUBBOCK INTERNATIONAL AIRPORT ARE NORMALLY IN A GRADUATED DESCENT (300' PER MILE) FROM APPROXIMATELY 12,000 MSL AT 30 NM FROM THE AIRPORT TO THE LANDING RUNWAY. AIRCRAFT ARE ENCOURAGED TO CONTACT LUBBOCK APPROACH CONTROL FOR TRAFFIC ADVISORIES.

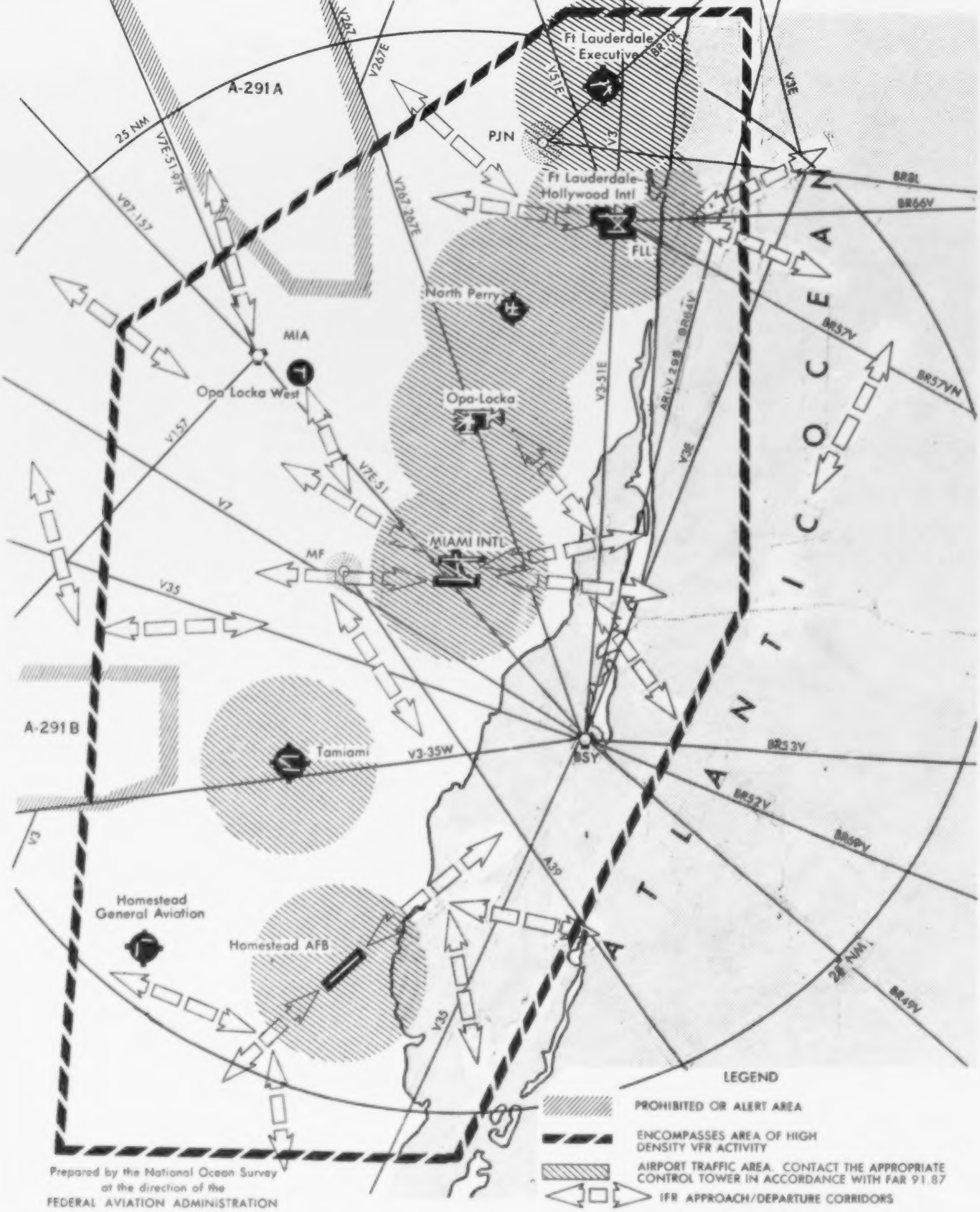

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
Hale Center
V81
FL 210
87
NORTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 119.3 335.6
10000 FOR MULTIPLE ILS 17R APPROACHES
PENETRATION AREA 15000 7000
84
V62
Petersburg
V14
Abernathy Muni
SOUTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 118.1 351.8
Anton
LBB
V14S-102
Shallowater
Lorenzo
V14
82
Idalou
Ralls
FL 230
A-637
RVO
REESE AFB
LUBBOCK INTL
Smyer
10000 FL 230
Wolfforth
REESE 2 MOA
Town & Country
Slaton Muni
62 82
8000 TO TERRY CO AF AUX.
V102
Ropesville
Woodrow
8000 TO 5000
V62
CLIMBING TO MOA
V76-81
87
V76N
REESE 4 MOA
84
FL 230
DESCENDING FROM MOA
CLIMBING TO MOA
LEGEND
CIVIL TURBOJET ARRIVAL AND DEPARTURES ROUTES
MILITARY TURBOJET DEPARTURE ROUTES
MILITARY TURBOJET ARRIVAL ROUTES
AREA OF HEAVY MILITARY TURBOJET TRAFFIC BELOW 8,000
↑ (ALTITUDE) CLIMBING TO (ALTITUDE)
(ALTITUDE) ↓ DESCENDING FROM (ALTITUDE)

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MIAMI, FLORIDA

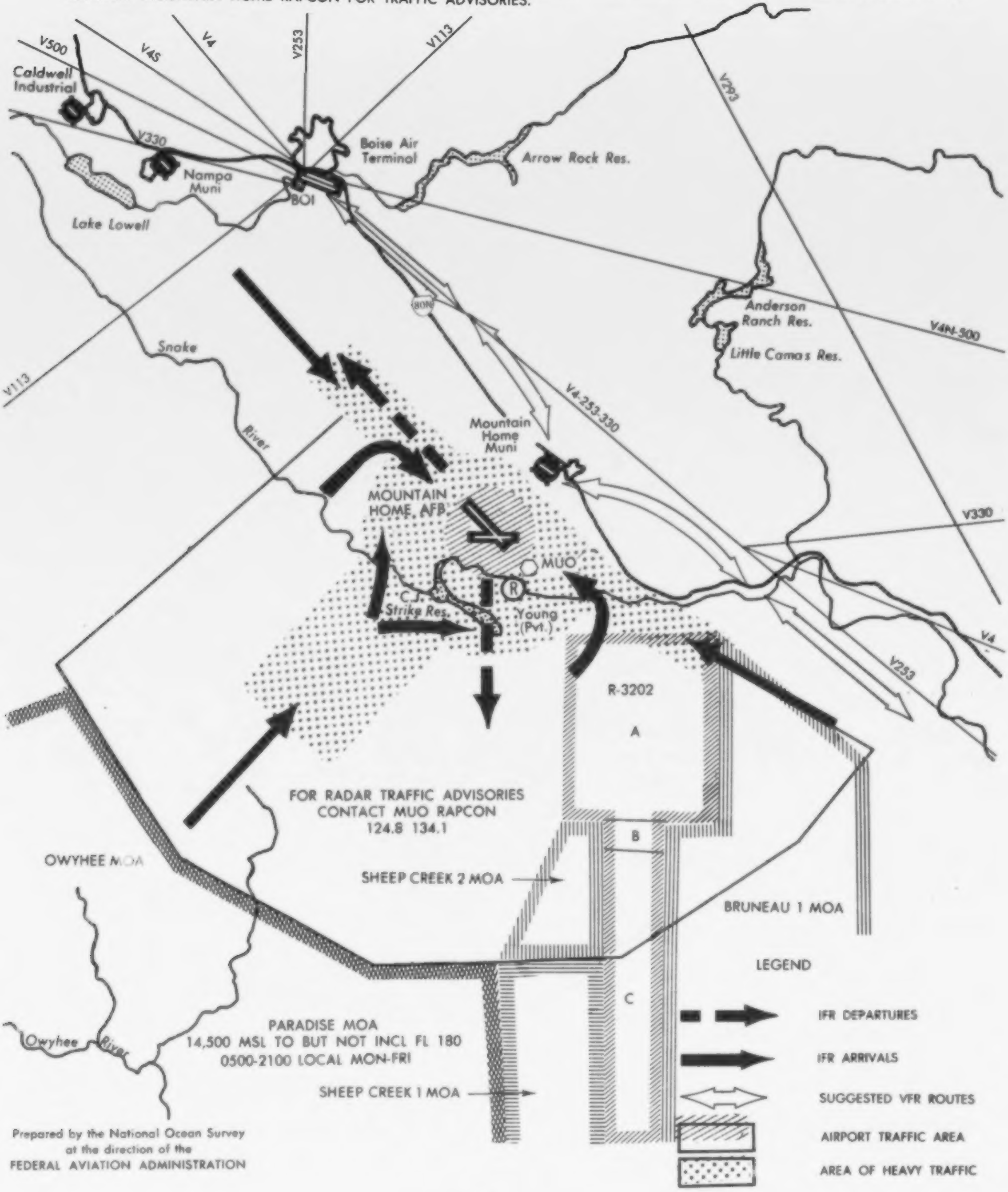

Ft Lauderdale Executive
BR10
V51E
V3E
PJN
V3
A-291 A
25 NM
V267
V267E
V7E-51-97E
V97-157
V267-267E
Ft Lauderdale-Hollywood Intl
BR8L
BR66V
FLL
North Perry
MIA
Opa Locka West
BR64V
ARLV 29B
BR57V
BR57VN
V3-51E
Opa-Locka
V157
V7E-51
V3E
V7
MIAMI INTL
MF
V35
A-291 B
Tamiami
V3-35W
BSY
BR53V
BR52V
BR69V
V3
A39
ATLANTIC OCEAN
Homestead General Aviation
Homestead AFB
25 NM
BR49V
V35
LEGEND
PROHIBITED OR ALERT AREA
ENCOMPASSES AREA OF HIGH DENSITY VFR ACTIVITY
AIRPORT TRAFFIC AREA. CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87
IFR APPROACH/DEPARTURE CORRIDORS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MOUNTAIN HOME AFB, IDAHO

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING MOUNTAIN HOME AFB FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, OR PROPOSING TO TRANSIT THE PARADISE MOA WHICH LIES IMMEDIATELY SOUTH AND SOUTHWEST OF MOUNTAIN HOME AFB, ARE ENCOURAGED TO CONTACT MOUNTAIN HOME RAPCON FOR TRAFFIC ADVISORIES.


V500
V45
V4
V253
V113
V293
Caldwell Industrial
V330
Boise Air Terminal
Arrow Rock Res.
Nampa Muni
BOI
Lake Lowell
80N
Anderson Ranch Res.
V4N-500
Little Camas Res.
Snake
River
V113
V4-253-330
Mountain Home Muni
MOUNTAIN HOME AFB
V330
MUO
R
C.J. Strike Res.
Young (Pvt.)
V4
V253
R-3202
A
B
C
FOR RADAR TRAFFIC ADVISORIES CONTACT MUO RAPCON 124.8 134.1
OWYHEE MOA
SHEEP CREEK 2 MOA
BRUNEAU 1 MOA
LEGEND
PARADISE MOA 14,500 MSL TO BUT NOT INCL FL 180 0500-2100 LOCAL MON-FRI
Owyhee River
SHEEP CREEK 1 MOA
IFR DEPARTURES
IFR ARRIVALS
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

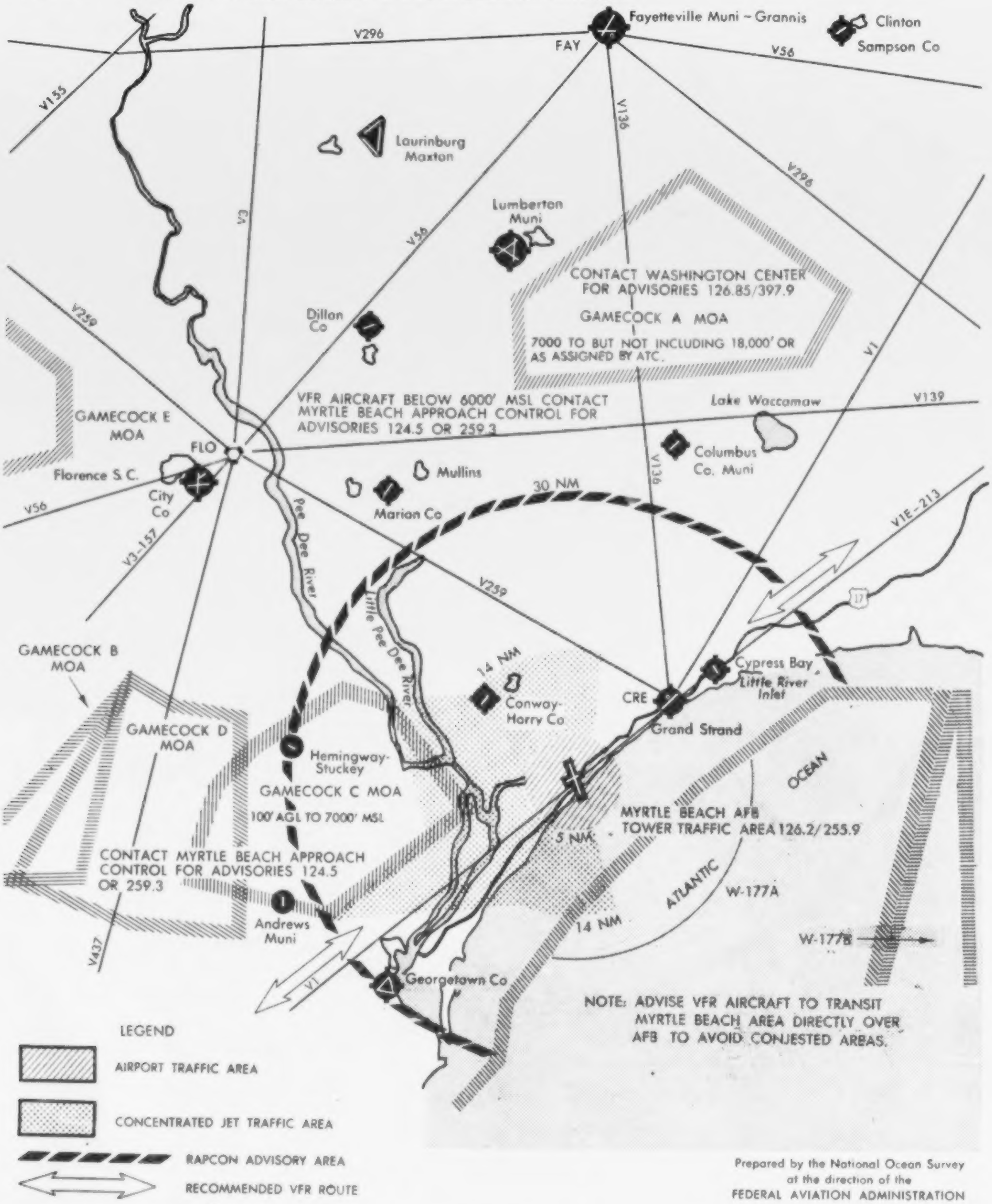
24 JAN 1980

315-821 0 - 80 - 6

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MYRTLE BEACH AFB, SOUTH CAROLINA

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF A-7D AND T-33 AIRCRAFT OPERATING IN THE VICINITY OF MYRTLE BEACH AFB, SOUTH CAROLINA. VFR PILOTS TRANSITING OR OPERATING WITHIN THE AREA ARE ENCOURAGED TO CONTACT MYRTLE BEACH APPROACH CONTROL OR CENTER RADAR FOR ADVISORIES.


Fayetteville Muni ~ Grannis
FAY
Clinton
Sampson Co
V296
V56
V155
V136
V296
Laurinburg
Maxton
V3
V58
Lumberton
Muni
CONTACT WASHINGTON CENTER
FOR ADVISORIES 126.85/397.9
GAMECOCK A MOA
7000 TO BUT NOT INCLUDING 18,000' OR
AS ASSIGNED BY ATC.
V1
V259
Dillon
Co
GAMECOCK E
MOA
VFR AIRCRAFT BELOW 6000' MSL CONTACT
MYRTLE BEACH APPROACH CONTROL FOR
ADVISORIES 124.5 OR 259.3
Lake Waccamaw
V139
FLO
Florence S.C.
City
Co
V56
Columbus
Co. Muni
V136
Mullins
Marion Co
30 NM
V3-157
Pee Dee River
V259
V1E-213
Little Pee Dee River
17
GAMECOCK B
MOA
14 NM
Conway-
Horry Co
CRE
Cypress Bay
Little River
Inlet
Grand Strand
GAMECOCK D
MOA
Hemingway-
Stuckey
GAMECOCK C MOA
100' AGL TO 7000' MSL
OCEAN
MYRTLE BEACH AFB
TOWER TRAFFIC AREA 126.2/255.9
5 NM
CONTACT MYRTLE BEACH APPROACH
CONTROL FOR ADVISORIES 124.5
OR 259.3
ATLANTIC
W-177A
Andrews
Muni
14 NM
W-177B
V437
V1
Georgetown Co
NOTE: ADVISE VFR AIRCRAFT TO TRANSIT
MYRTLE BEACH AREA DIRECTLY OVER
AFB TO AVOID CONJESTED AREAS.
LEGEND
AIRPORT TRAFFIC AREA
CONCENTRATED JET TRAFFIC AREA
RAPCON ADVISORY AREA
RECOMMENDED VFR ROUTE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

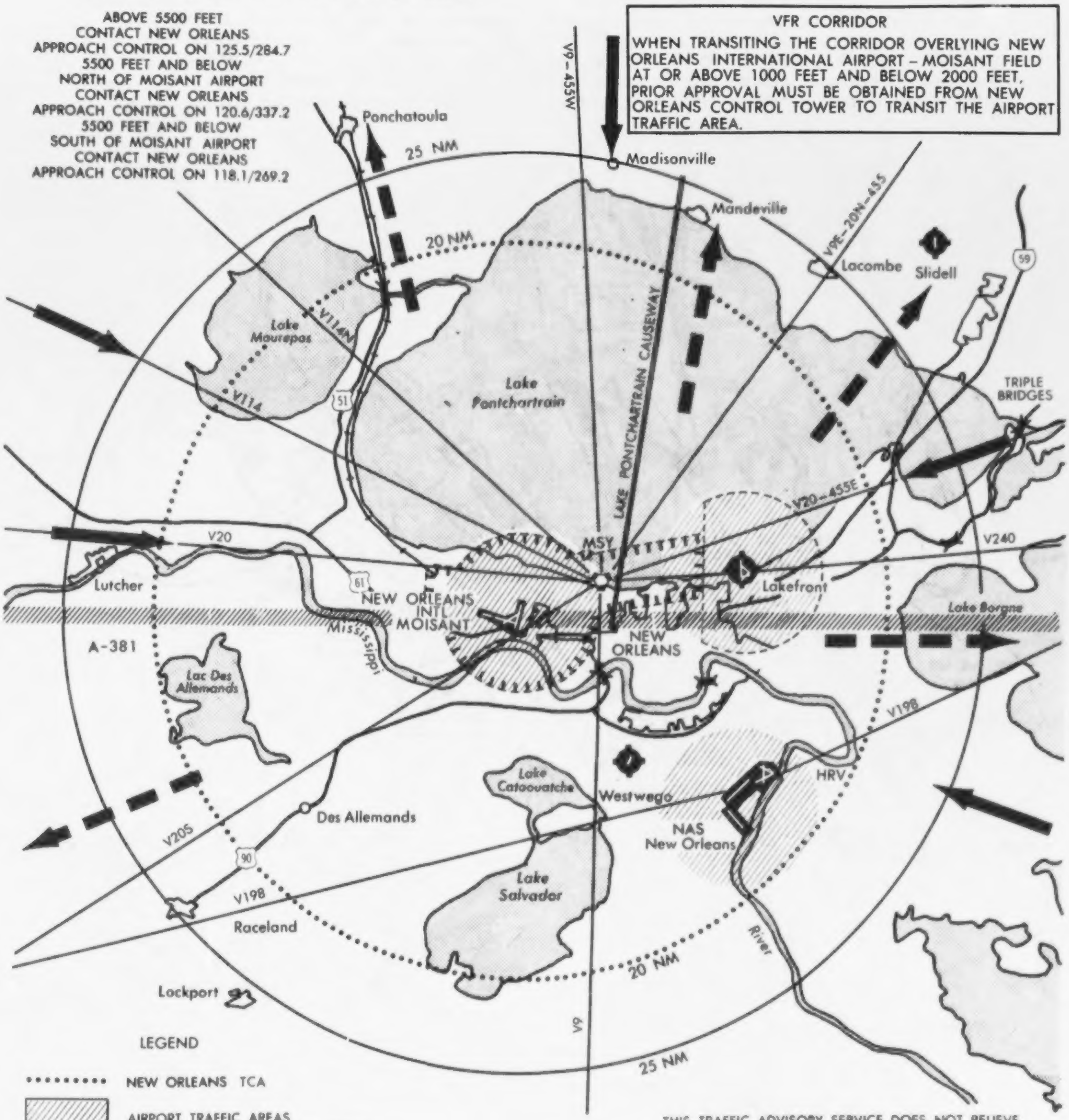
NEW ORLEANS, LOUISIANA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE NEW ORLEANS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THIS AREA ARE ENCOURAGED TO CONTACT NEW ORLEANS RADAR.

ABOVE 5500 FEET
CONTACT NEW ORLEANS
APPROACH CONTROL ON 125.5/284.7
5500 FEET AND BELOW
NORTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 120.6/337.2
5500 FEET AND BELOW
SOUTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 118.1/269.2

VFR CORRIDOR

WHEN TRANSITING THE CORRIDOR OVERLYING NEW ORLEANS INTERNATIONAL AIRPORT – MOISANT FIELD AT OR ABOVE 1000 FEET AND BELOW 2000 FEET, PRIOR APPROVAL MUST BE OBTAINED FROM NEW ORLEANS CONTROL TOWER TO TRANSIT THE AIRPORT TRAFFIC AREA.


V9–455W
Ponchatoula
25 NM
Madisonville
Mandeville
V9E–20N–455
20 NM
Lacombe
Slidell
1
59
Lake Maurepas
V114N
V114
51
Lake Pontchartrain
LAKE PONTCHARTRAIN CAUSEWAY
TRIPLE BRIDGES
V20–455E
V20
V240
MSY
61
Lutcher
NEW ORLEANS INTL MOISANT
Lakefront
Lake Borgne
Mississippi
NEW ORLEANS
A-381
Lac Des Allemands
V198
Lake Catoouatche
Westwego
HRV
Des Allemands
NAS New Orleans
V205
90
V198
Lake Salvador
Raceland
River
20 NM
Lockport
V9
25 NM

LEGEND

•••••••• NEW ORLEANS TCA

▨ AIRPORT TRAFFIC AREAS
CONTACT THE APPROPRIATE TOWER

← ▬ ▬ ▬ PRIMARY TURBOJET DEPARTURE ROUTES

⟶ PRIMARY TURBOJET ARRIVAL ROUTES

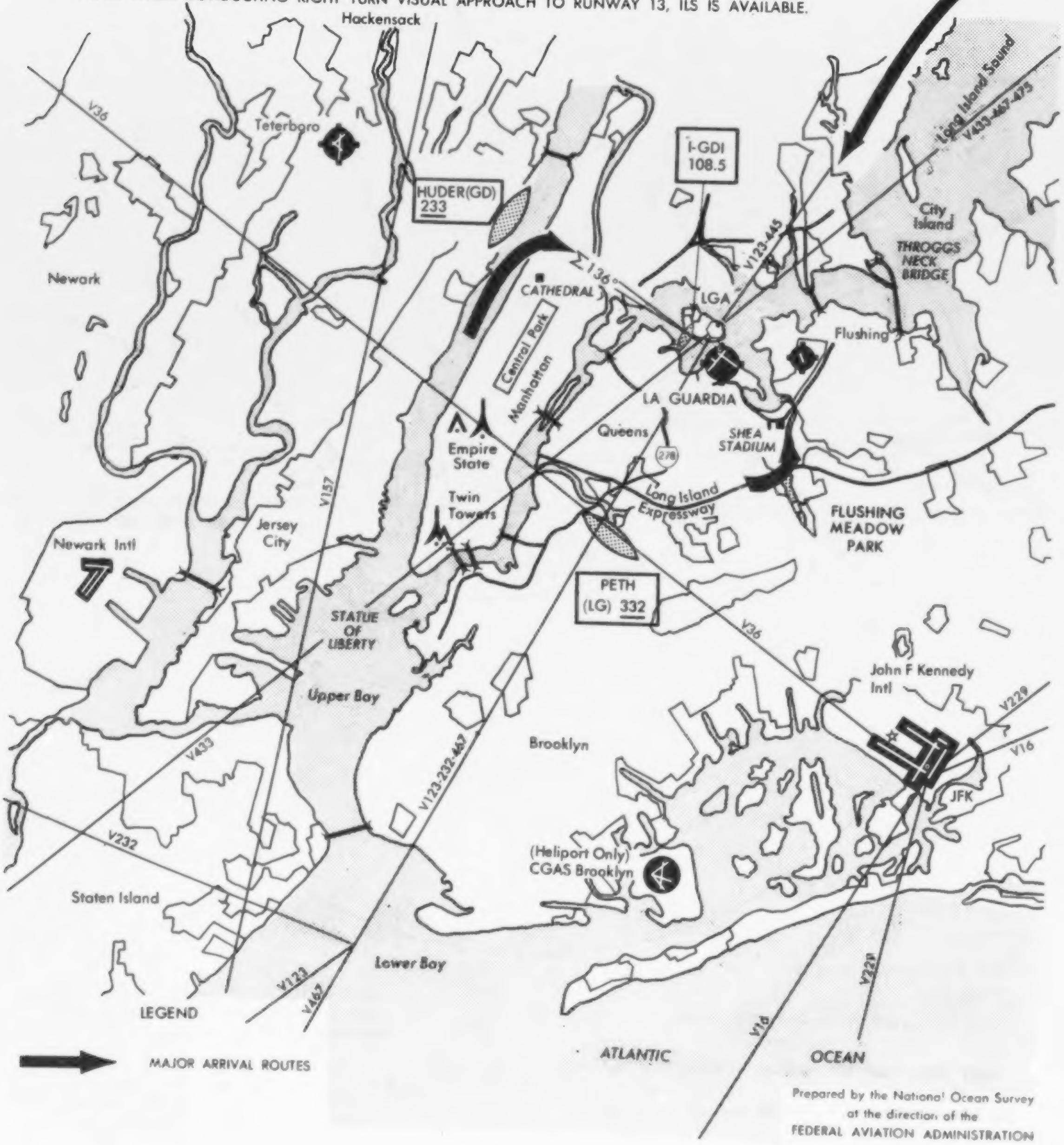
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW YORK, NY LA GUARDIA AIRPORT

THIS CHART HAS BEEN DEVELOPED TO AID PILOTS CONDUCTING VISUAL APPROACHES TO LA GUARDIA AIRPORT. 1. WHEN CONDUCTING VISUAL APPROACHES IT IS DESIRABLE THAT THE HIGHEST ALTITUDE PRACTICABLE IS MAINTAINED UNTIL DESCENT FOR LANDING IS BEGUN. 2. WHEN APPROACHING FROM THE NORTHEAST (LONG ISLAND SOUND) FLIGHT OVER THE OPEN WATER AREAS SHOULD BE MAINTAINED AS LONG AS POSSIBLE. ADHERENCE TO THE VOR TRACK IS ESSENTIAL TO MEET THE OBJECTIVES OF NOISE ABATEMENT WHEN THE VOR APPROACH IS BEING USED. 3. WHEN APPROACHING TO LAND ON RUNWAY 31, IT IS SUGGESTED THAT A FLIGHT PATH OVER THE FLUSHING MEADOW (OLD WORLD'S FAIR GROUNDS) BE MAINTAINED AS LONG AS FEASIBLE.
NOTE: WHEN CONDUCTING RIGHT TURN VISUAL APPROACH TO RUNWAY 13, ILS IS AVAILABLE.


Hackensack
V36
Teterboro
Newark
HUDER(GD)
233
CATHEDRAL
136°
Central Park
Manhattan
Empire State
Twin Towers
I-GDI
108.5
V123-445
LGA
LA GUARDIA
Long Island Sound
V433-467-475
City Island
THROGGS NECK BRIDGE
Flushing
Queens
278
SHEA STADIUM
Long Island Expressway
FLUSHING MEADOW PARK
Newark Intl
Jersey City
V157
STATUE OF LIBERTY
Upper Bay
PETH
(LG) 332
V36
John F Kennedy Intl
V229
V16
JFK
Brooklyn
V123-232-467
V433
V232
Staten Island
(Heliport Only)
CGAS Brooklyn
Lower Bay
V123
V467
V16
V229
LEGEND
MAJOR ARRIVAL ROUTES
ATLANTIC
OCEAN

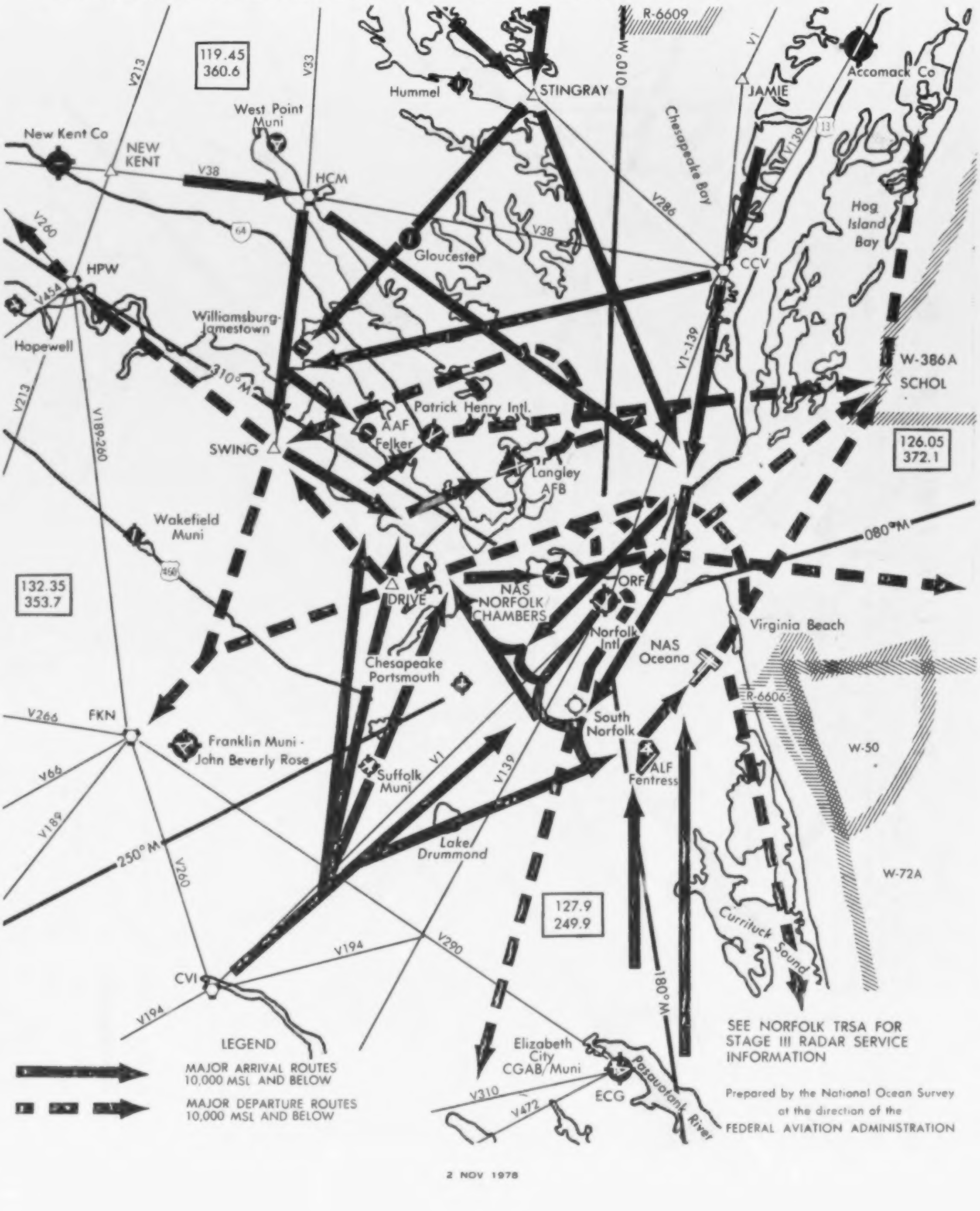
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE NORFOLK TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT NORFOLK APPROACH CONTROL. THIS TRAFFIC ADVISORY DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. STAGE III RADAR SERVICE IS AVAILABLE FOR VFR AIRCRAFT LANDING/DEPARTING LANGLEY AFB, NAS NORFOLK AND NORFOLK INTERNATIONAL AIRPORT.


R-6609
119.45
360.6
V213
V33
Hummel
STINGRAY
010°M
V1
JAMIE
Accomack Co
Chesapeake Bay
13
West Point Muni
New Kent Co
NEW KENT
V38
HCM
V139
V286
Hog Island Bay
V260
64
V38
Gloucester
CCV
HPW
V454
Williamsburg-Jamestown
Hopewell
V1-139
W-386A
SCHOL
310°M
Patrick Henry Intl.
AAF Felker
V213
V189-260
SWING
Langley AFB
126.05
372.1
Wakefield Muni
080°M
460
132.35
353.7
DRIVE
NAS NORFOLK/CHAMBERS
ORF
Virginia Beach
Norfolk Intl
NAS Oceana
Chesapeake Portsmouth
R-6606
V266
FKN
South Norfolk
Franklin Muni - John Beverly Rose
W-50
V66
Suffolk Muni
V1
V139
ALF Fentress
V189
250°M
V260
Lake Drummond
W-72A
127.9
249.9
Currituck Sound
V194
V290
CVI
180°M
V194
LEGEND
Elizabeth City CGAB/Muni
MAJOR ARRIVAL ROUTES 10,000 MSL AND BELOW
MAJOR DEPARTURE ROUTES 10,000 MSL AND BELOW
V310
V472
ECG
Pasquotank River

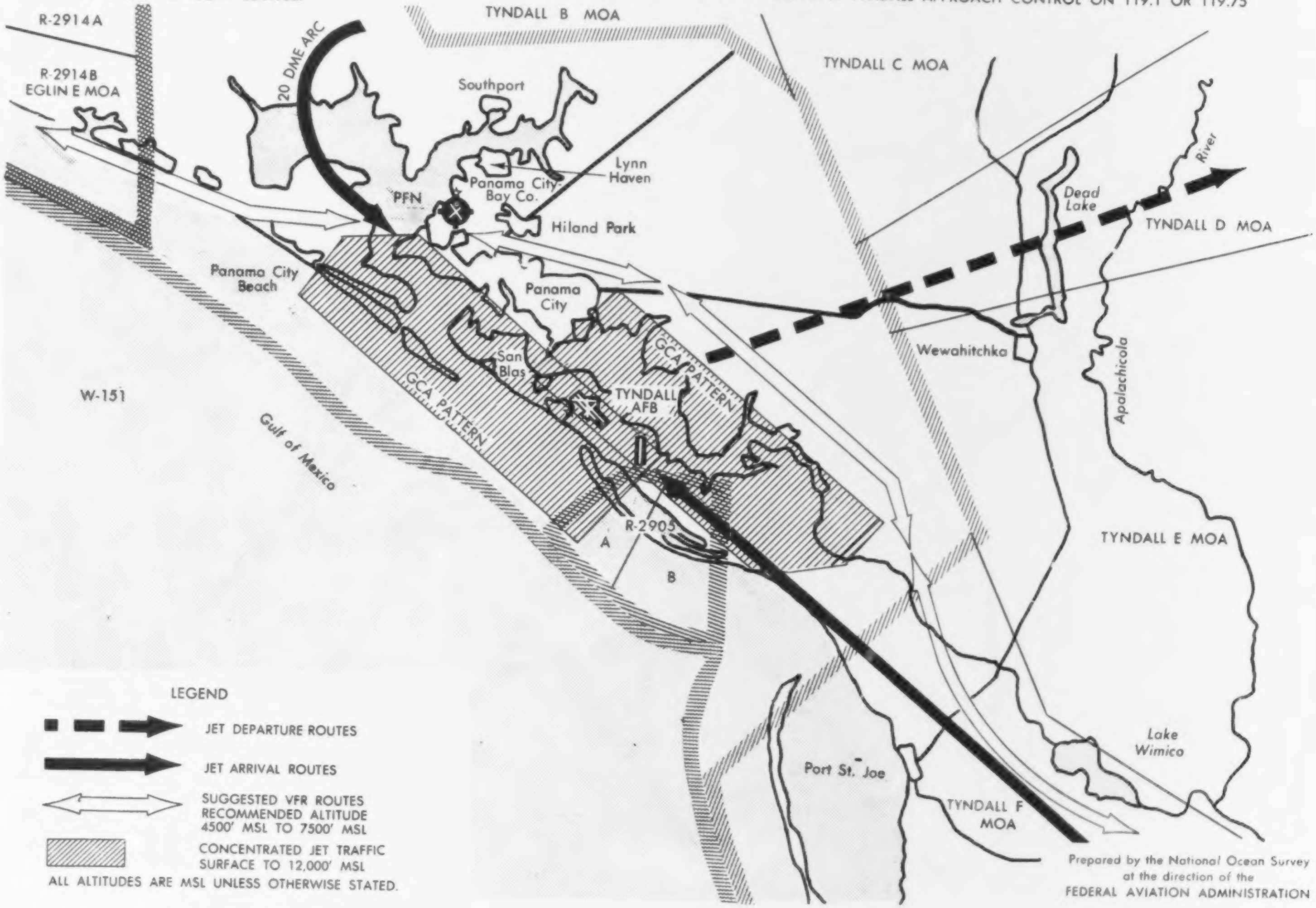
SEE NORFOLK TRSA FOR
STAGE III RADAR SERVICE
INFORMATION

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

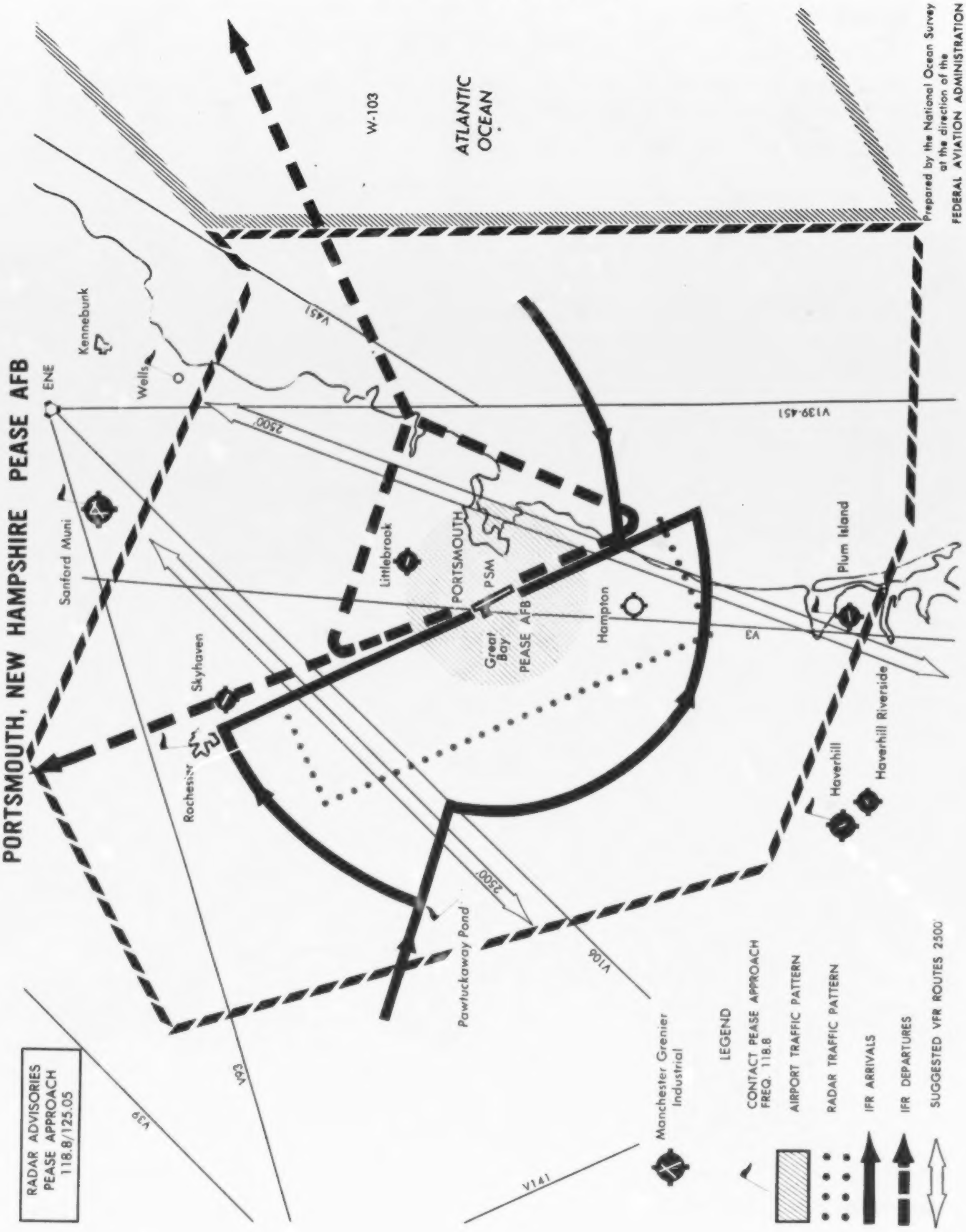
PANAMA CITY, TYNDALL AFB, FLA.

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET AIRCRAFT TRAFFIC OPERATING IN VICINITY OF TYNDALL AFB, FLA. MANNED/UNMANNED DRONE OPERATIONS ARE CONDUCTED FROM SATELLITE DRONE RUNWAY 18/36 LOCATED 3.0 STATUTE MILES S/SE OF MAIN AIRFIELD DURING DAYLITE HOURS. VFR AIRCRAFT OVERFLYING THE AREA OR LANDING AT PANAMA CITY AIRPORT ARE URGED TO CONTACT TYNDALL APPROACH CONTROL ON 119.1 OR 119.75 FOR RADAR ADVISORY SERVICE.


R-2914A
R-2914B
EGLIN E MOA
TYNDALL B MOA
TYNDALL C MOA
TYNDALL D MOA
TYNDALL E MOA
TYNDALL F MOA
20 DME ARC
Southport
Lynn Haven
Panama City-Bay Co.
PFN
Hiland Park
Panama City Beach
Panama City
San Blas
TYNDALL AFB
GCA PATTERN
GCA PATTERN
R-2905
A
B
W-151
Gulf of Mexico
Dead Lake
River
Apalachicola
Wewahitchka
Port St. Joe
Lake Wimico
LEGEND
JET DEPARTURE ROUTES
JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES RECOMMENDED ALTITUDE 4500' MSL TO 7500' MSL
CONCENTRATED JET TRAFFIC SURFACE TO 12,000' MSL
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)



PORTSMOUTH, NEW HAMPSHIRE PEASE AFB

RADAR ADVISORIES
PEASE APPROACH
118.8/125.05
ATLANTIC OCEAN
W-103
V451
V139-451
V3
V93
V39
V106
V141
2500'
ENE
Kennebunk
Wells
Sanford Muni
Littlebrook
PORTSMOUTH
PSM
PORTSMOUTH
PEASE AFB
Great Bay
Hampton
Skyhaven
Rochester
Plum Island
Haverhill
Haverhill Riverside
Pawtuckaway Pond
Manchester Grenier Industrial
LEGEND
CONTACT PEASE APPROACH FREQ. 118.8
AIRPORT TRAFFIC PATTERN
RADAR TRAFFIC PATTERN
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES 2500'

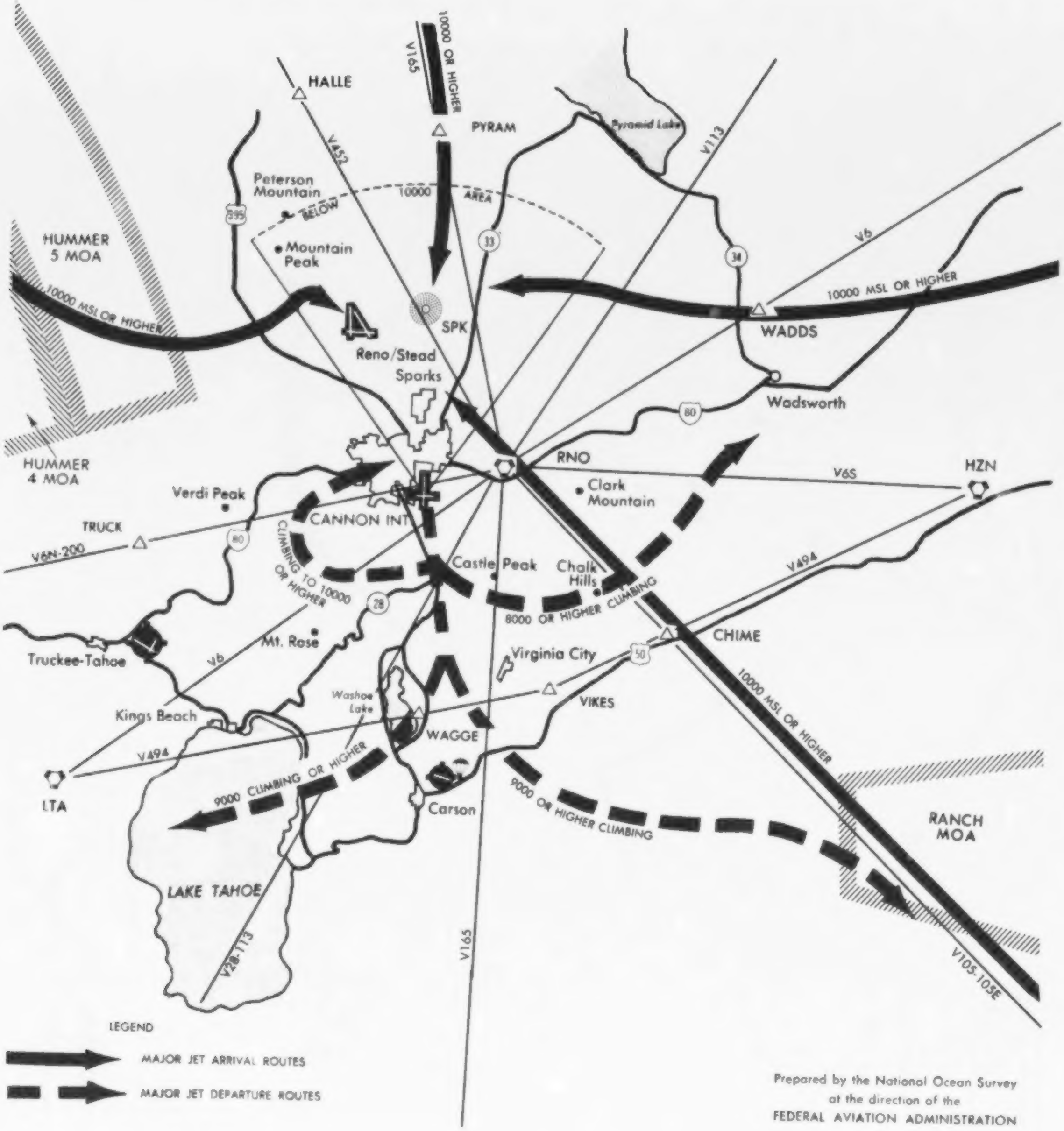
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

RENO, NEVADA

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. FOR STAGE II SERVICES, AIRCRAFT LANDING AT RENO OR STEAD MONITOR ATIS ON 125.8 25 NM OUT FOR FREQUENCY ASSIGNMENT. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


V165
10000 OR HIGHER
HALLE
PYRAM
V452
Pyramid Lake
V113
Peterson Mountain
395
10000 BELOW AREA
HUMMER 5 MOA
Mountain Peak
33
34
V6
10000 MSL OR HIGHER
10000 MSL OR HIGHER
SPK
WADDS
Reno/Stead
Sparks
Wadsworth
80
HUMMER 4 MOA
RNO
HZN
Verdi Peak
Clark Mountain
V6S
CANNON INT
TRUCK
V6N-200
80
CLIMBING TO 10000 OR HIGHER
Castle Peak
Chalk Hills
V494
28
8000 OR HIGHER CLIMBING
CHIME
Mt. Rose
50
Truckee-Tahoe
V6
Virginia City
Kings Beach
Washoe Lake
VIKES
WAGGE
V494
10000 MSL OR HIGHER
LTA
9000 CLIMBING OR HIGHER
Carson
9000 OR HIGHER CLIMBING
RANCH MOA
LAKE TAHOE
V28-113
V165
V105-105E
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES

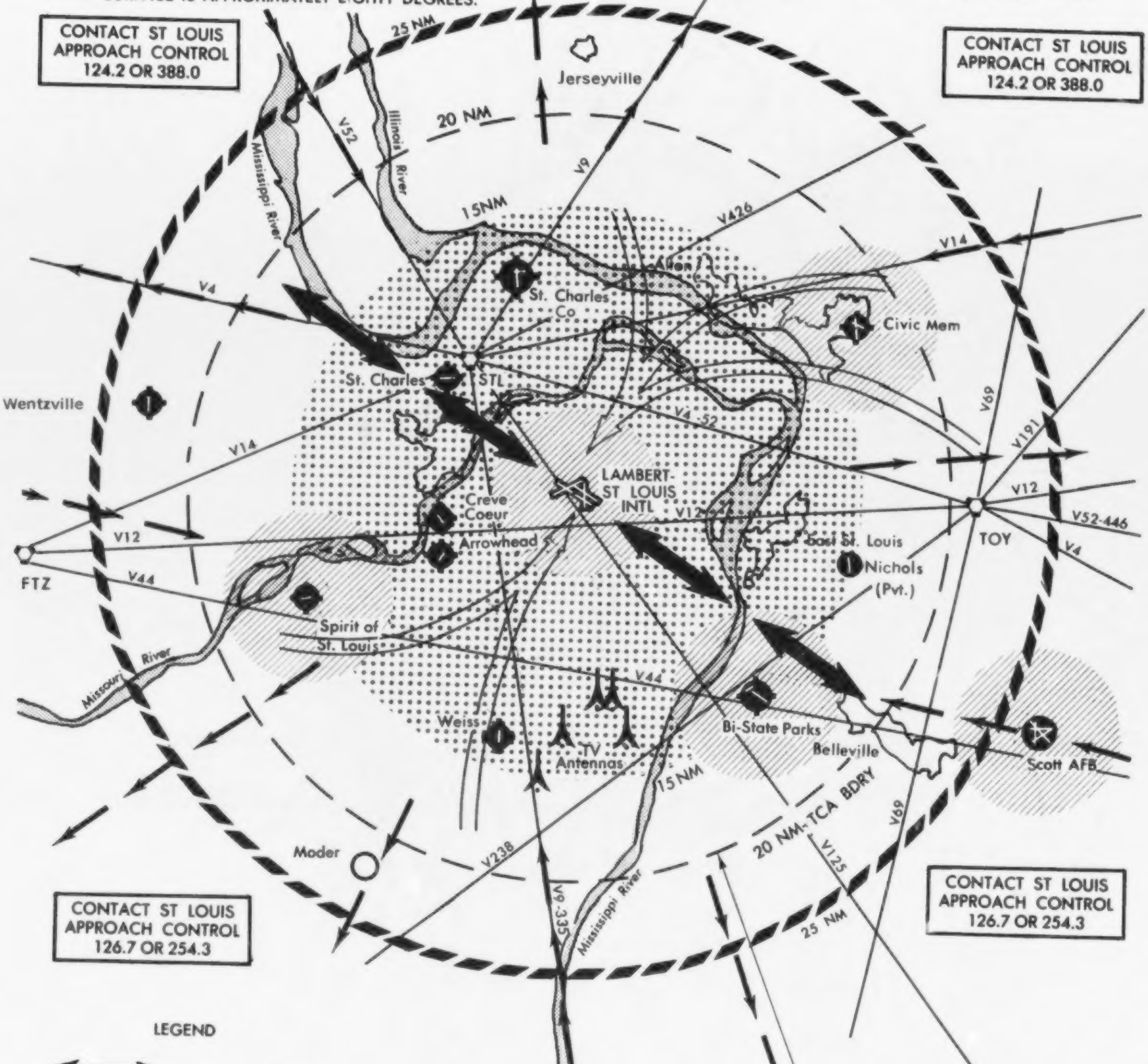
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

ST. LOUIS, MISSOURI

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE ST. LOUIS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT ST. LOUIS RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC. HIGH PERFORMANCE FIGHTER TYPE JET AIRCRAFT DEPARTING MAXIMUM CLIMB ABOVE 8000 FEET, FIVE NAUTICAL MILE RADIUS OF AIRPORT. PITCH ANGLE FROM SURFACE IS APPROXIMATELY EIGHTY DEGREES.


25 NM
Jerseyville
20 NM
V52
Illinois River
Mississippi River
V9
15NM
V426
V14
V4
Alton
St. Charles Co
Civic Mem
St. Charles
STL
Wentzville
V14
V4-52
V69
V191
LAMBERT-ST LOUIS INTL
V12
Creve Coeur
Arrowhead
V12
TOY
V52-446
V4
FTZ
V12
V44
East St. Louis
Nichols (Pvt.)
Spirit of St. Louis
Missouri River
V44
Weiss
TV Antennas
Bi-State Parks
Belleville
Scott AFB
15 NM
20 NM-TCA BDRY
V69
V125
Moder
V238
V9-335
Mississippi River
25 NM

CONTACT ST LOUIS APPROACH CONTROL 124.2 OR 388.0

CONTACT ST LOUIS APPROACH CONTROL 124.2 OR 388.0

CONTACT ST LOUIS APPROACH CONTROL 126.7 OR 254.3

CONTACT ST LOUIS APPROACH CONTROL 126.7 OR 254.3

LEGEND

⟺ IFR CORRIDORS

→ → NORMAL ROUTE FOR IFR TRAFFIC

⇨ RECOMMENDED VFR CORRIDORS/ROUTES FOR RUNWAYS 12/30

▨ AIRPORT TRAFFIC AREA--CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87

░ AREA OF HEAVY TRAFFIC BETWEEN 5 NM AND 15 NM FROM 2400' TO 8000' MSL

▬ ▬ AREA OF HEAVY TRAFFIC BETWEEN 15 NM AND 25 NM FROM 5000' TO 10,000' MSL

Festus Mem

SEE ST LOUIS VFR TERMINAL AREA CHART FOR ADDITIONAL INFORMATION

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

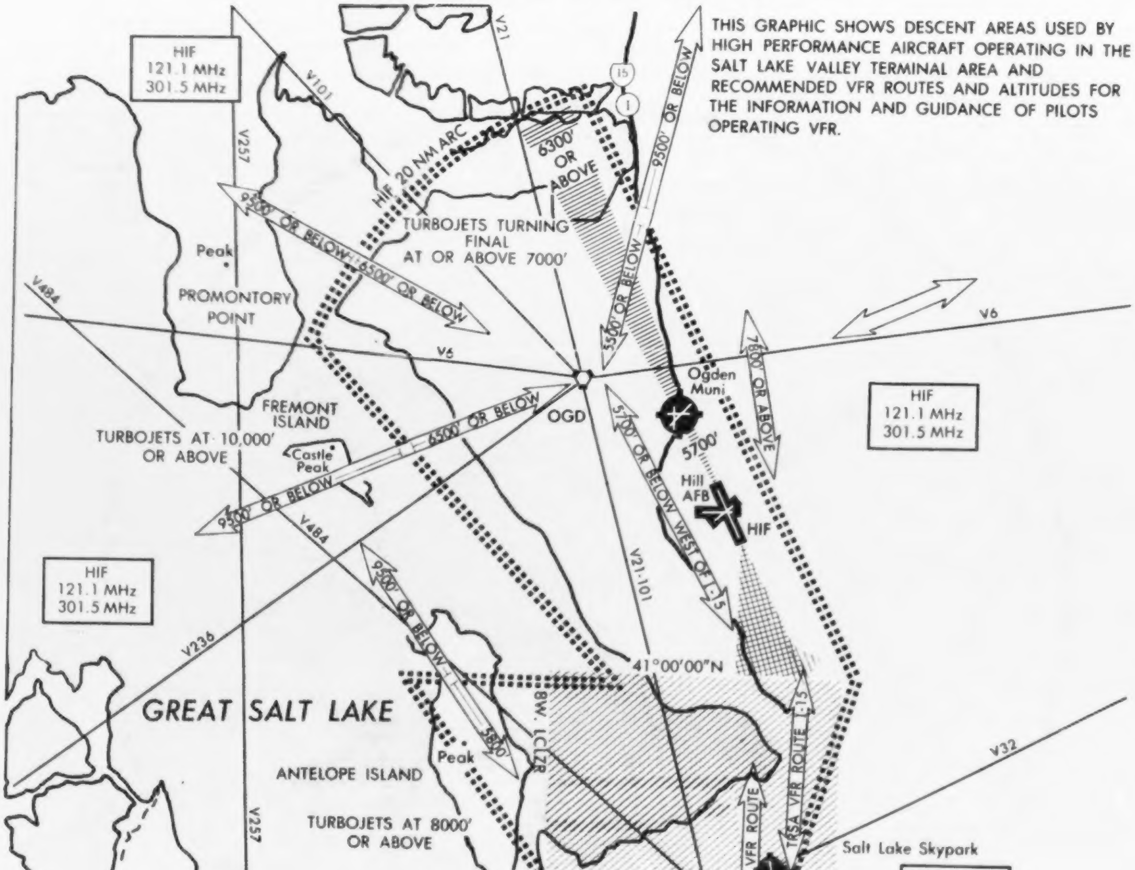
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SALT LAKE VALLEY, UTAH

THIS GRAPHIC SHOWS DESCENT AREAS USED BY HIGH PERFORMANCE AIRCRAFT OPERATING IN THE SALT LAKE VALLEY TERMINAL AREA AND RECOMMENDED VFR ROUTES AND ALTITUDES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR.


HIF
121.1 MHz
301.5 MHz
V101
V21
15
1
V257
HIF 20 NM ARC
6300' OR ABOVE
9500' OR BELOW
TURBOJETS TURNING FINAL AT OR ABOVE 7000'
9500' OR BELOW
6500' OR BELOW
Peak
PROMONTORY POINT
V484
V6
5500' OR BELOW
7500' OR ABOVE
Ogden Muni
FREMONT ISLAND
OGD
HIF
121.1 MHz
301.5 MHz
TURBOJETS AT 10,000' OR ABOVE
6500' OR BELOW
Castle Peak
9500' OR BELOW
5700' OR BELOW WEST OF I-15
5700'
Hill AFB
HIF
V484
V21-101
HIF
121.1 MHz
301.5 MHz
9500' OR BELOW
V236
41°00'00"N
GREAT SALT LAKE
8W. LCLZR
5800'
Peak
ANTELOPE ISLAND
TURBOJETS AT 8000' OR ABOVE
I-15 TRSA VFR ROUTE
TRSA VFR ROUTE
V32
Salt Lake Skypark
SLC
124.3 MHz
322.3 MHz
V257
STANSBURY ISLAND
SLC
SALT LAKE CITY INTL
V32
V32-253
V101
V484
6500' OR BELOW
5800'
SLC
124.3 MHz
322.3 MHz
5800 WEST 5800'
TRSA VFR ROUTE
SE. LCLZR
TURBOJETS AT 10000' OR ABOVE
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
10 NM
REDWOOD RD TRSA VFR ROUTE
I-15 TRSA VFR ROUTE
Salt Lake City Muni Nr. 2
SLC
124.3 MHz
322.3 MHz
V253
V21
SLC 22 NM ARC
TURBOJETS AT 9000' OR ABOVE
R-6412
LEGEND
HILL AFB FINAL APPROACH
TURBOJET DESCENT AREA
RECOMMENDED VFR ROUTES
NUMEROUS SOUTHBOUND DEPARTURES
SALT LAKE CITY TERMINAL RADAR SERVICE AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

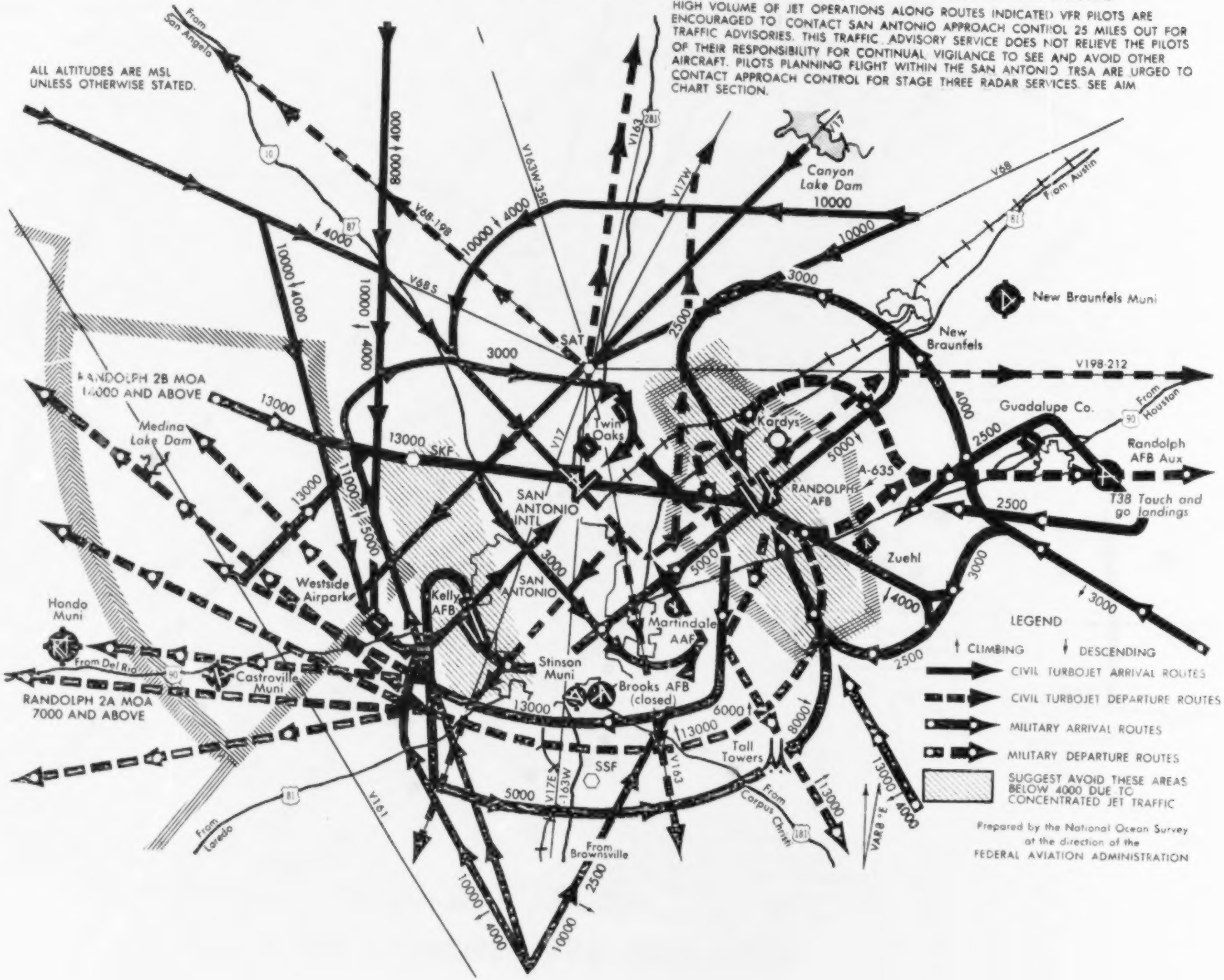
2 NOV 1978

SAN ANTONIO, TEXAS

RANDOLPH AFB T-37/T-38 ARRIVAL/DEPARTURE ROUTES AND CIVIL TURBOJET ARRIVAL/DEPARTURE ROUTES FOR SAN ANTONIO INTERNATIONAL

HIGH VOLUME OF JET OPERATIONS ALONG ROUTES INDICATED VFR PILOTS ARE ENCOURAGED TO CONTACT SAN ANTONIO APPROACH CONTROL 25 MILES OUT FOR TRAFFIC ADVISORIES. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. PILOTS PLANNING FLIGHT WITHIN THE SAN ANTONIO TRSA ARE URGED TO CONTACT APPROACH CONTROL FOR STAGE THREE RADAR SERVICES. SEE AIM CHART SECTION.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.


From San Angelo
10
87
8000 ↓ 4000
V68-198
10000 ↓ 4000
V163W-358
V163
281
V17W
17
Canyon Lake Dam
10000
V68
81
From Austin
10000
3000
↓4000
10000 ↓ 4000
V68S
10000 ↓ 4000
2500
New Braunfels Muni
New Braunfels
SAT
3000
V198-212
RANDOLPH 2B MOA 14000 AND ABOVE
13000
Medina Lake Dam
13000 SKF
V17
Twin Oaks
Kardys
4000
Guadalupe Co.
90
From Houston
Randolph AFB Aux
2500
5000↑
A-635
RANDOLPH AFB
2500
T38 Touch and go landings
13000
11000 ↓ 5000
SAN ANTONIO INTL
3000
5000
Zuehl
3000
↓3000
Westside Airpark
Kelly AFB
SAN ANTONIO
↓4000
Martindale AAF
LEGEND
Hondo Muni
Stinson Muni
From Del Rio
90
Castroville Muni
Brooks AFB (closed)
RANDOLPH 2A MOA 7000 AND ABOVE
13000
6000↑
8000↑
2500
↑13000
Tall Towers
SSF
V17E
-163W
V163
5000
From Corpus Christi
181
13000 ↓ 4000
VAR 8°E
81
From Laredo
V161
From Brownsville
10000 ↓ 4000
10000
2500

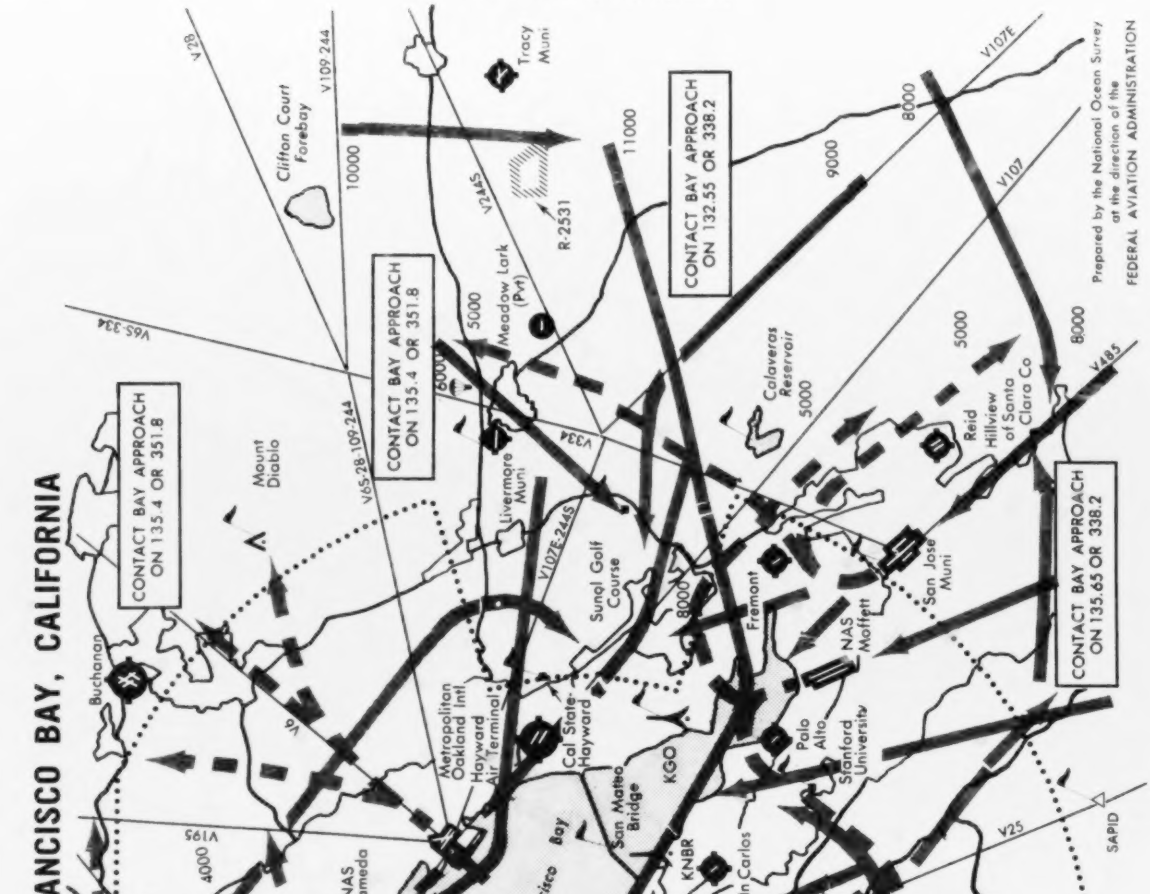
↑ CLIMBING	↓ DESCENDING

- CIVIL TURBOJET ARRIVAL ROUTES
- CIVIL TURBOJET DEPARTURE ROUTES
- MILITARY ARRIVAL ROUTES
- MILITARY DEPARTURE ROUTES
- ▨ SUGGEST AVOID THESE AREAS BELOW 4000 DUE TO CONCENTRATED JET TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)



SAN FRANCISCO BAY, CALIFORNIA

CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 132.55 OR 338.2
CONTACT BAY APPROACH ON 135.65 OR 338.2
CONTACT BAY APPROACH ON 120.9 OR 323.2
CONTACT BAY APPROACH ON 124.4 OR 307.2
V28
V109.244
Clifton Court Forebay
10000
Tracy Muni
V244S
R-2531
11000
9000
8000
V107E
V107
Meadow Lark (Pvt)
5000
V65-334
V334
Mount Diablo
V65-28-109-244
Livermore Muni
V107E-244S
Sunol Golf Course
Calaveras Reservoir
5000
5000
8000
Reid Hillview of Santa Clara Co
V485
San Jose Muni
Fremont
8000
NAS Moffett
Buchanan
V6
Metropolitan Oakland Intl
Hayward Air Terminal
Cal State-Hayward
San Mateo Bridge
KGO
Palo Alto
Stanford University
V195
4000
NAS Alameda
San Francisco Bay
Hunters Point
KNBR
San Carlos
SAPID
V25
5000
RICHMOND
V87
Bay Meadows
Crystal Springs Causeway
OSI
9000
Lake Merced
Crissy AHP
SAN FRANCISCO INTL
V130
6000
V107
SAU
Golden Gate Bridge
Half Moon Bay
V27
V25-150-199
V25-27
V199
PACIFIC OCEAN
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

LEGEND

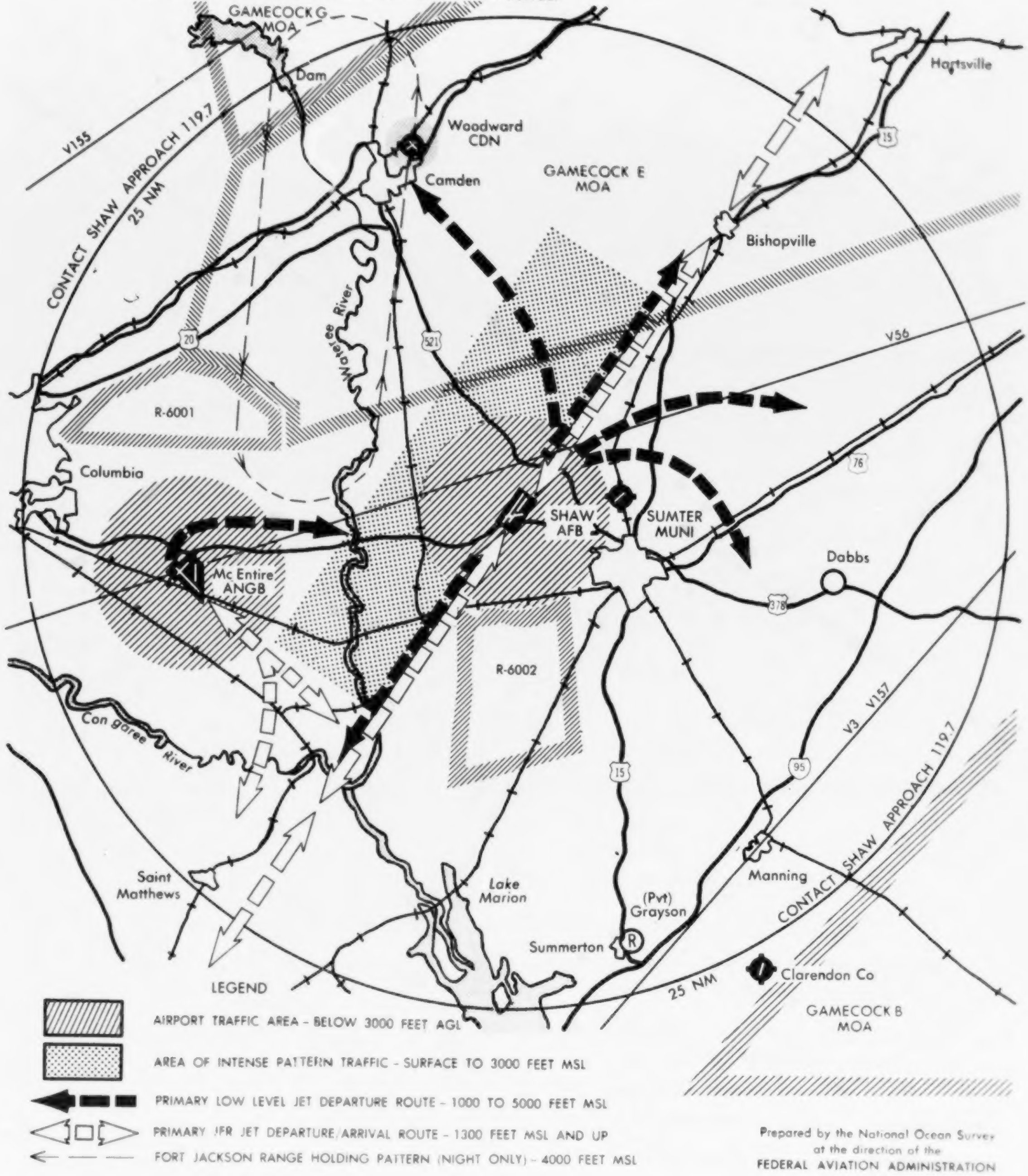
- ⋯⋯ SAN FRANCISCO TCA
- 6000 FR CHECK POINT
- ARRIVALS
- DEPARTURES

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SHAW AFB SOUTH CAROLINA

THIS MAP SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE SHAW TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA AT OR BELOW 6000 FEET MSL ARE ENCOURAGED TO CONTACT SHAW APPROACH CONTROL ON 119.7 FOR TRAFFIC ADVISORIES.


GAMECOCK G MOA
Dam
V155
CONTACT SHAW APPROACH 119.7
25 NM
Woodward CDN
Camden
GAMECOCK E MOA
Hartsville
15
Bishopville
20
Wateree River
521
V56
R-6001
Columbia
76
SHAW AFB
SUMTER MUNI
Mc Entire ANGB
Dabbs
378
R-6002
Congaree River
15
95
V3 V157
CONTACT SHAW APPROACH 119.7
Saint Matthews
Lake Marion
(Pvt) Grayson
Manning
Summerton
R
25 NM
Clarendon Co
GAMECOCK B MOA

LEGEND

▨ AIRPORT TRAFFIC AREA – BELOW 3000 FEET AGL

▒ AREA OF INTENSE PATTERN TRAFFIC – SURFACE TO 3000 FEET MSL

◀■■ PRIMARY LOW LEVEL JET DEPARTURE ROUTE – 1000 TO 5000 FEET MSL

◁□▷ PRIMARY IFR JET DEPARTURE/ARRIVAL ROUTE – 1300 FEET MSL AND UP

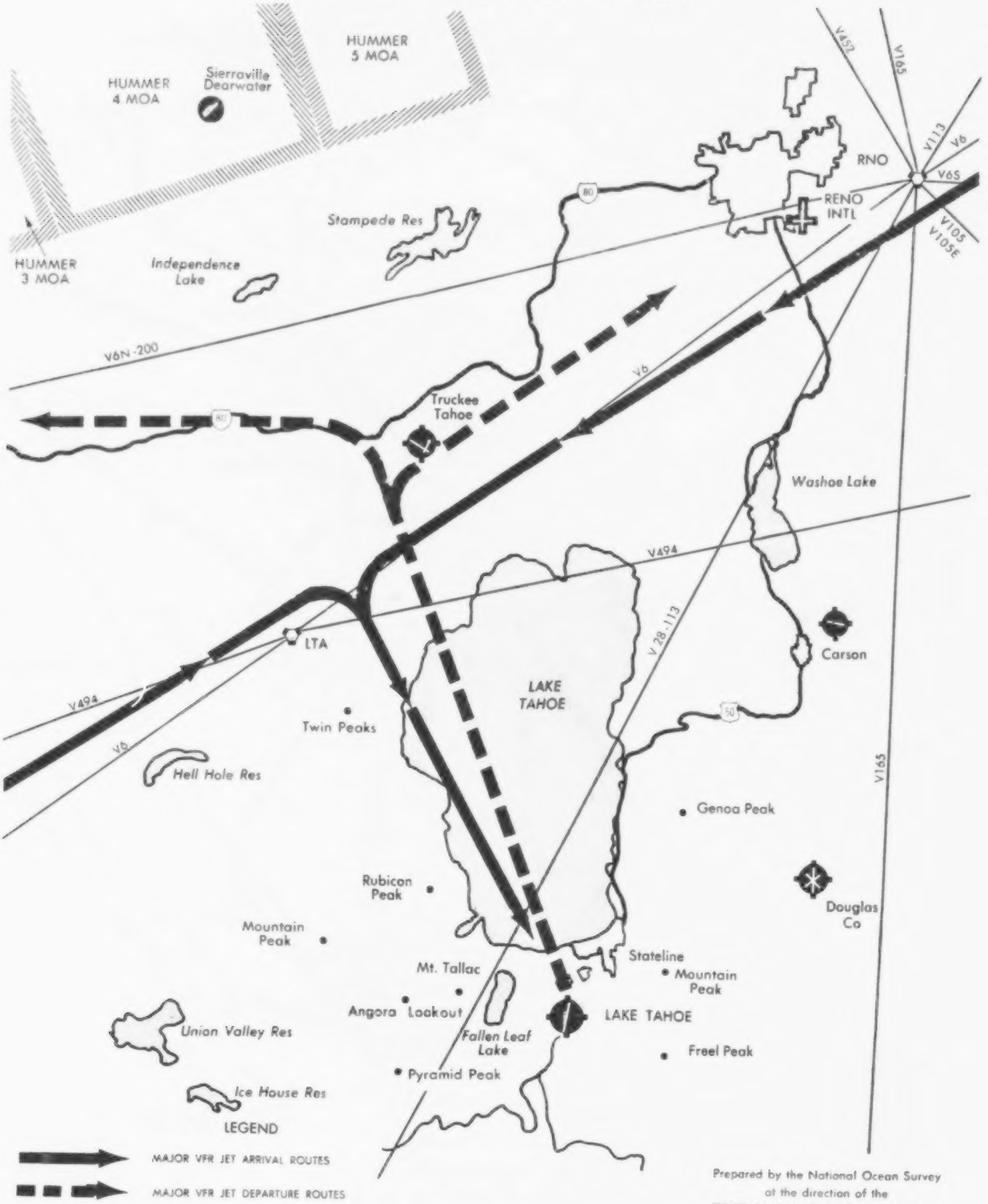
← — — FORT JACKSON RANGE HOLDING PATTERN (NIGHT ONLY) – 4000 FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAHOE VALLEY, CALIFORNIA


HUMMER 5 MOA
HUMMER 4 MOA
Sierraville Dearwater
HUMMER 3 MOA
Stampede Res
Independence Lake
80
RNO
RENO INTL
V452
V165
V113
V6
V6S
V105
V105E
V6N-200
V6
Truckee Tahoe
80
Washoe Lake
V494
LTA
V494
V6
V28-113
LAKE TAHOE
Carson
50
Twin Peaks
Hell Hole Res
V165
Genoa Peak
Rubicon Peak
Douglas Co
Mountain Peak
Stateline
Mountain Peak
Mt. Tallac
Angora Lookout
LAKE TAHOE
Fallen Leaf Lake
Freel Peak
Union Valley Res
Pyramid Peak
Ice House Res
LEGEND
MAJOR VFR JET ARRIVAL ROUTES
MAJOR VFR JET DEPARTURE ROUTES

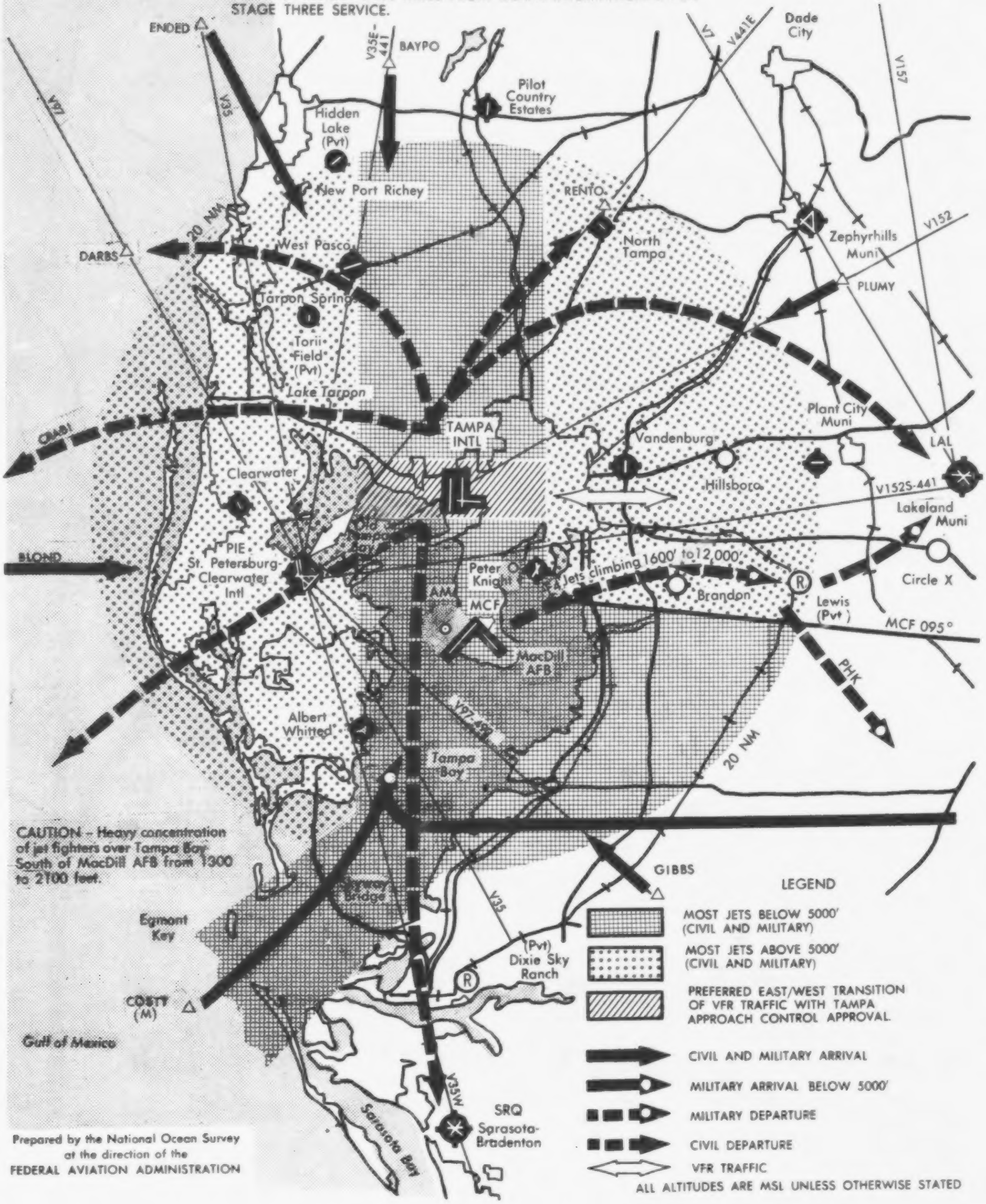
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

18 MAY 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA

VFR AIRCRAFT ARE STRONGLY URGED TO CONTACT TAMPA APPROACH CONTROL PRIOR TO 15 MILES FROM TAMPA INTERNATIONAL FOR STAGE THREE SERVICE.


ENDED
V97
V35
V35E-441
BAYPO
Hidden Lake (Pvt)
Pilot Country Estates
New Port Richey
20 NM
DARBS
West Pasco
Tarpon Springs
Torii Field (Pvt)
Lake Tarpon
CRABI
TAMPA INTL
Clearwater
BLOND
PIE St. Petersburg-Clearwater Intl
Old Tampa Bay
V7
V441E
Dade City
V157
RENTO
North Tampa
Zephyrhills Muni
V152
PLUMY
Plant City Muni
LAL
Vandenburg
Hillsboro
V152S-441
Lakeland Muni
Peter Knight
Jets climbing 1600′ to 12,000′
Brandon
Circle X
Lewis (Pvt)
MCF 095°
AM
MCF
MacDill AFB
PHK
V97-490
Albert Whitted
Tampa Bay
20 NM
Skyway Bridge
GIBBS
V35
Egmont Key
(Pvt) Dixie Sky Ranch
R
COSTY (M)
Gulf of Mexico
V35W
Sarasota Bay
SRQ Sarasota-Bradenton
LEGEND
▦ MOST JETS BELOW 5000′ (CIVIL AND MILITARY)
⁘ MOST JETS ABOVE 5000′ (CIVIL AND MILITARY)
▨ PREFERRED EAST/WEST TRANSITION OF VFR TRAFFIC WITH TAMPA APPROACH CONTROL APPROVAL.
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL BELOW 5000′
MILITARY DEPARTURE
CIVIL DEPARTURE
VFR TRAFFIC
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

CAUTION – Heavy concentration of jet fighters over Tampa Bay South of MacDill AFB from 1300 to 2100 feet.

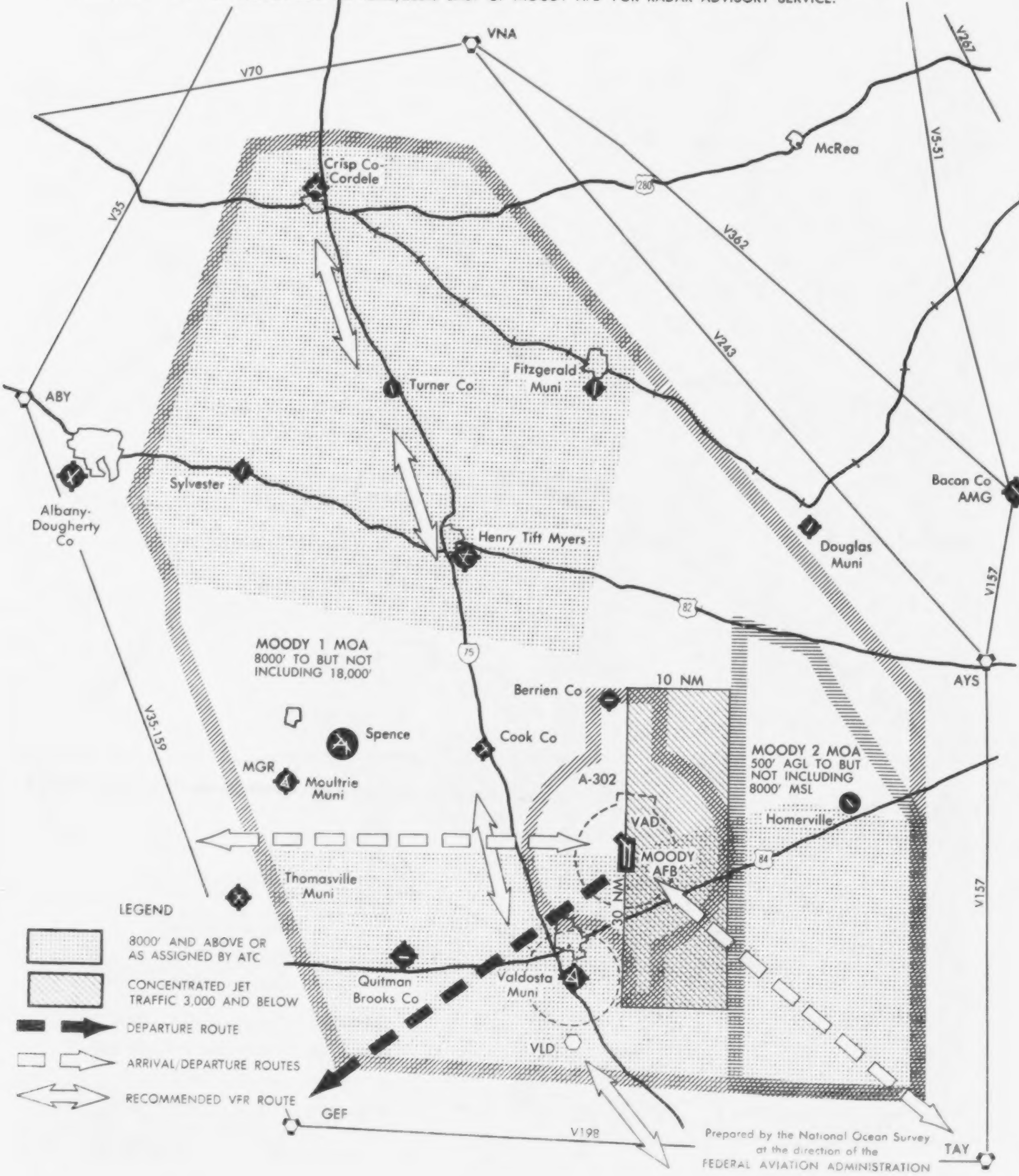
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALDOSTA, MOODY AFB, GA.

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF F-4 AIRCRAFT OPERATING IN THE VICINITY OF MOODY AFB, GEORGIA. VFR AIRCRAFT OVERFLYING THE AREA ARE URGED TO CONTACT VALDOSTA APPROACH ON 126.6/259.3 WEST OF MOODY AFB OR 124.6/285.6 EAST OF MOODY AFB FOR RADAR ADVISORY SERVICE.


VNA
V70
V267
V5-51
McRea
280
Crisp Co-Cordele
V35
V362
V243
ABY
Turner Co
Fitzgerald Muni
Albany-Dougherty Co
Sylvester
Bacon Co AMG
Henry Tift Myers
Douglas Muni
V157
82
AYS
MOODY 1 MOA
8000′ TO BUT NOT INCLUDING 18,000′
75
10 NM
Berrien Co
V35-159
Spence
Cook Co
MOODY 2 MOA
500′ AGL TO BUT NOT INCLUDING 8000′ MSL
MGR
Moultrie Muni
A-302
VAD
Homerville
MOODY AFB
84
30 NM
Thomasville Muni
V157
LEGEND
8000′ AND ABOVE OR AS ASSIGNED BY ATC
CONCENTRATED JET TRAFFIC 3,000 AND BELOW
DEPARTURE ROUTE
ARRIVAL/DEPARTURE ROUTES
RECOMMENDED VFR ROUTE
Quitman Brooks Co
Valdosta Muni
VLD
GEF
V198
TAY

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALPARAISO, FLORIDA
SPECIAL AIR TRAFFIC RULES
(VFR OR IFR CONDITIONS)

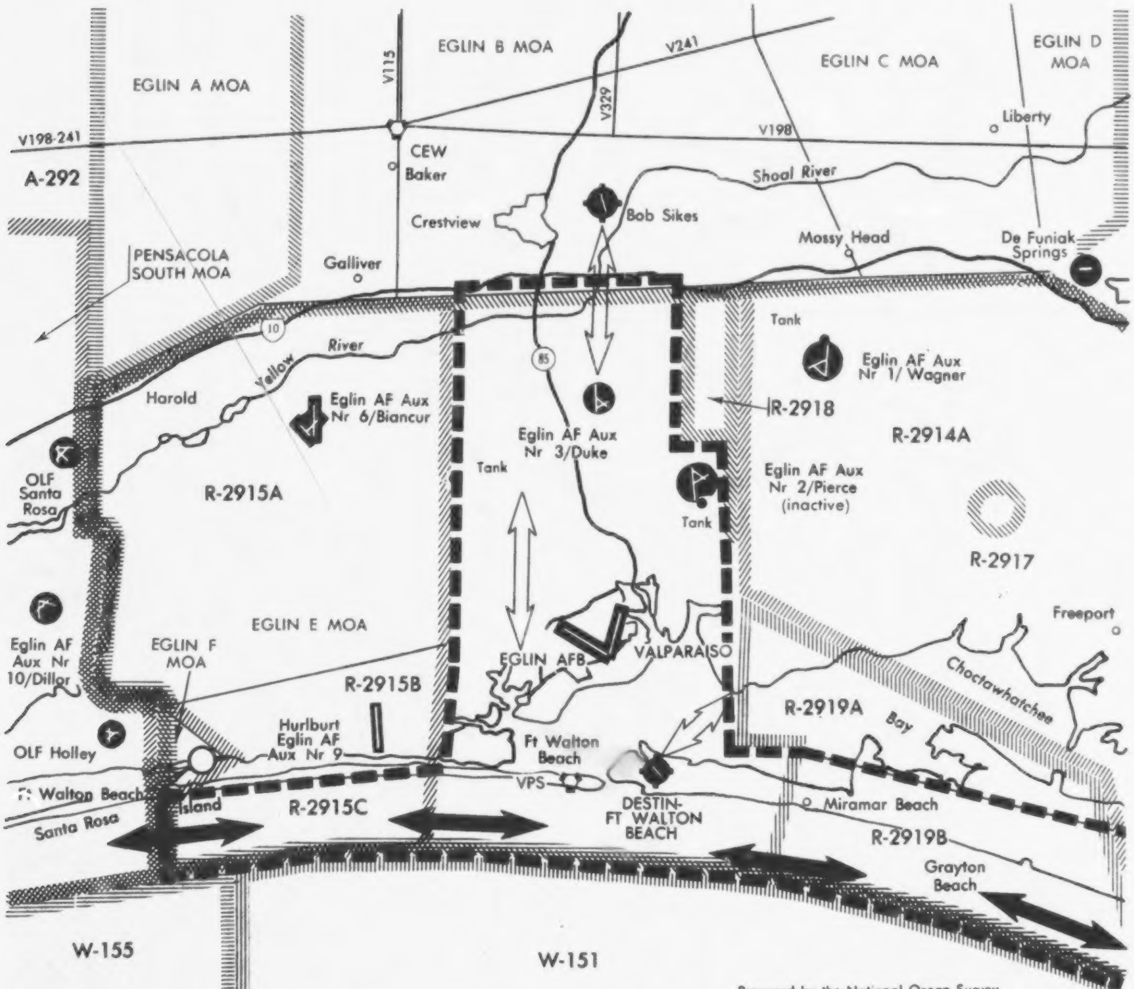
A SPECIAL RULE IN EFFECT REQUIRES PILOTS TO OBTAIN AN ATC CLEARANCE WHEN OPERATING IN AND OUT OF THE EGLIN/VALPARAISO, FLORIDA AREA.

▬ ▬ ▬ ▬ ▬ HI-DENSITY JET TRAFFIC 3000′ AND BELOW

⇔ CLEARANCE REQUIRED PRIOR TO ENTERING NORTH/SOUTH CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED N/S ROUTINGS – 3500′ OR ABOVE

⬌ ADVISORIES REQUIRED PRIOR TO OPERATING WITHIN EAST/WEST CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED E/W ROUTINGS – BELOW 8500′

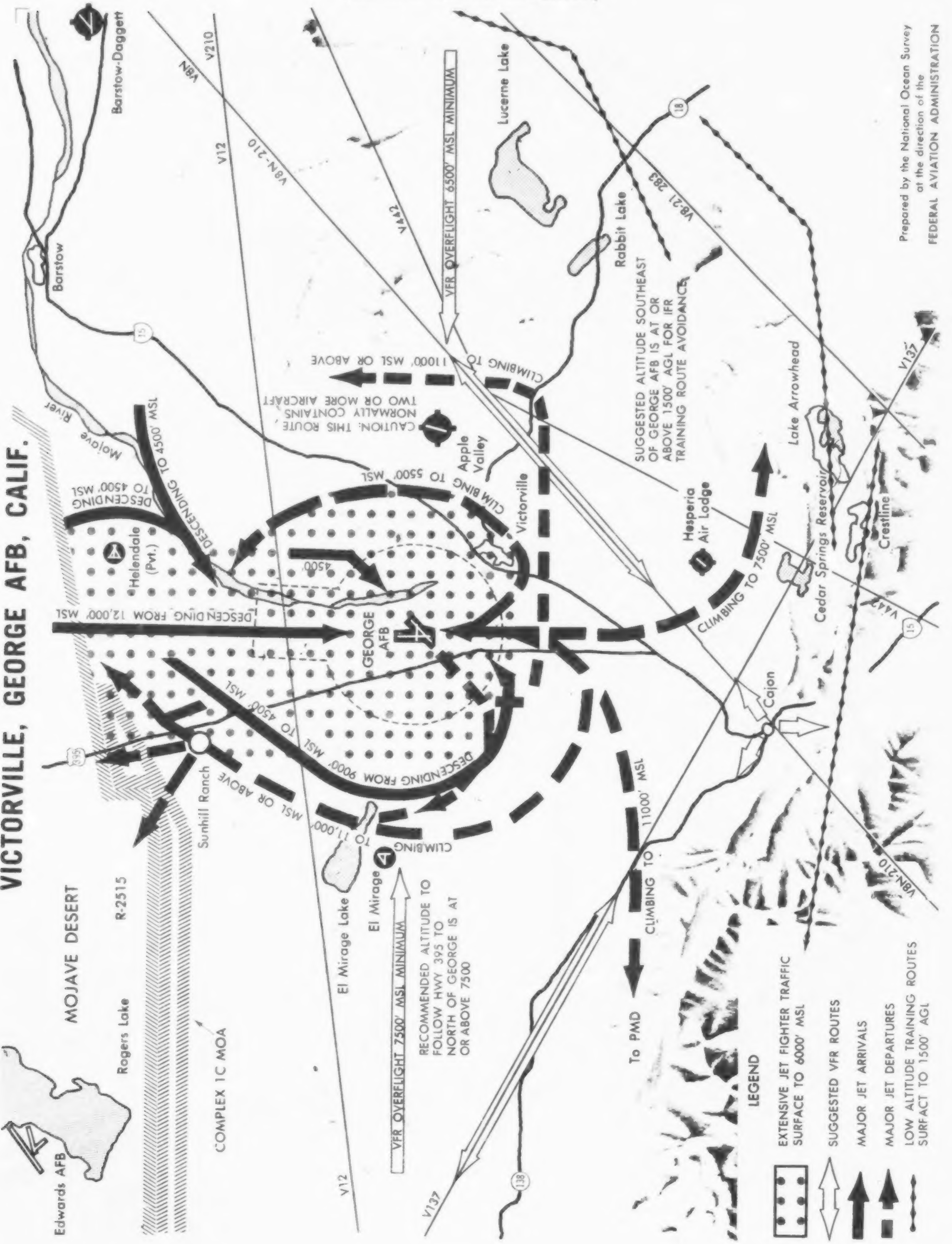
(HEAVY DENSE JET TRAFFIC 3000′ AND BELOW)


EGLIN A MOA
EGLIN B MOA
EGLIN C MOA
EGLIN D MOA
V115
V241
V329
V198
V198-241
A-292
CEW
Baker
Liberty
Shoal River
Crestview
Bob Sikes
Mossy Head
De Funiak Springs
PENSACOLA SOUTH MOA
Galliver
10
Tank
Eglin AF Aux Nr 1/ Wagner
River
Yellow
85
Harold
Eglin AF Aux Nr 6/Biancur
R-2918
Eglin AF Aux Nr 3/Duke
R-2914A
OLF Santa Rosa
Tank
Eglin AF Aux Nr 2/Pierce (inactive)
R-2915A
Tank
R-2917
Eglin AF Aux Nr 10/Dillor
EGLIN E MOA
Freeport
EGLIN F MOA
EGLIN AFB
VALPARAISO
Choctawhatchee
R-2915B
R-2919A
Bay
OLF Holley
Hurlburt Eglin AF Aux Nr 9
Ft Walton Beach
Ft Walton Beach
VPS
Island
R-2915C
Santa Rosa
DESTIN-FT WALTON BEACH
Miramar Beach
R-2919B
Grayton Beach
W-155
W-151

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)



VICTORVILLE, GEORGE AFB, CALIF.

MOJAVE DESERT
Rogers Lake
Edwards AFB
R-2515
COMPLEX 1C MOA
Sunhill Ranch
395
Helendale (Pvt.)
Mojave River
Barstow
Barstow-Daggett
15
V12
V210
V8N
V8N-210
V442
V8-21 283
V137
V8N-210
18
138
Lucerne Lake
Rabbit Lake
Apple Valley
Victorville
GEORGE AFB
Hesperia Air Lodge
Lake Arrowhead
Cedar Springs Reservoir
Crestline
Cajon
El Mirage Lake
El Mirage
To PMD
DESCENDING TO 4500' MSL
DESCENDING TO 4500' MSL
DESCENDING FROM 12,000' MSL
4500'
CLIMBING TO 5500' MSL
DESCENDING FROM 9000' MSL TO 4500' MSL
CLIMBING TO 11,000' MSL OR ABOVE
CLIMBING TO 11000' MSL
CLIMBING TO 11000' MSL OR ABOVE
CLIMBING TO 7500' MSL
CAUTION: THIS ROUTE NORMALLY CONTAINS TWO OR MORE AIRCRAFT
VFR OVERFLIGHT 6500' MSL MINIMUM
VFR OVERFLIGHT 7500' MSL MINIMUM
RECOMMENDED ALTITUDE TO FOLLOW HWY 395 TO NORTH OF GEORGE IS AT OR ABOVE 7500
SUGGESTED ALTITUDE SOUTHEAST OF GEORGE AFB IS AT OR ABOVE 1500' AGL FOR IFR TRAINING ROUTE AVOIDANCE
LEGEND
EXTENSIVE JET FIGHTER TRAFFIC SURFACE TO 6000' MSL
SUGGESTED VFR ROUTES
MAJOR JET ARRIVALS
MAJOR JET DEPARTURES
LOW ALTITUDE TRAINING ROUTES SURFACT TO 1500' AGL

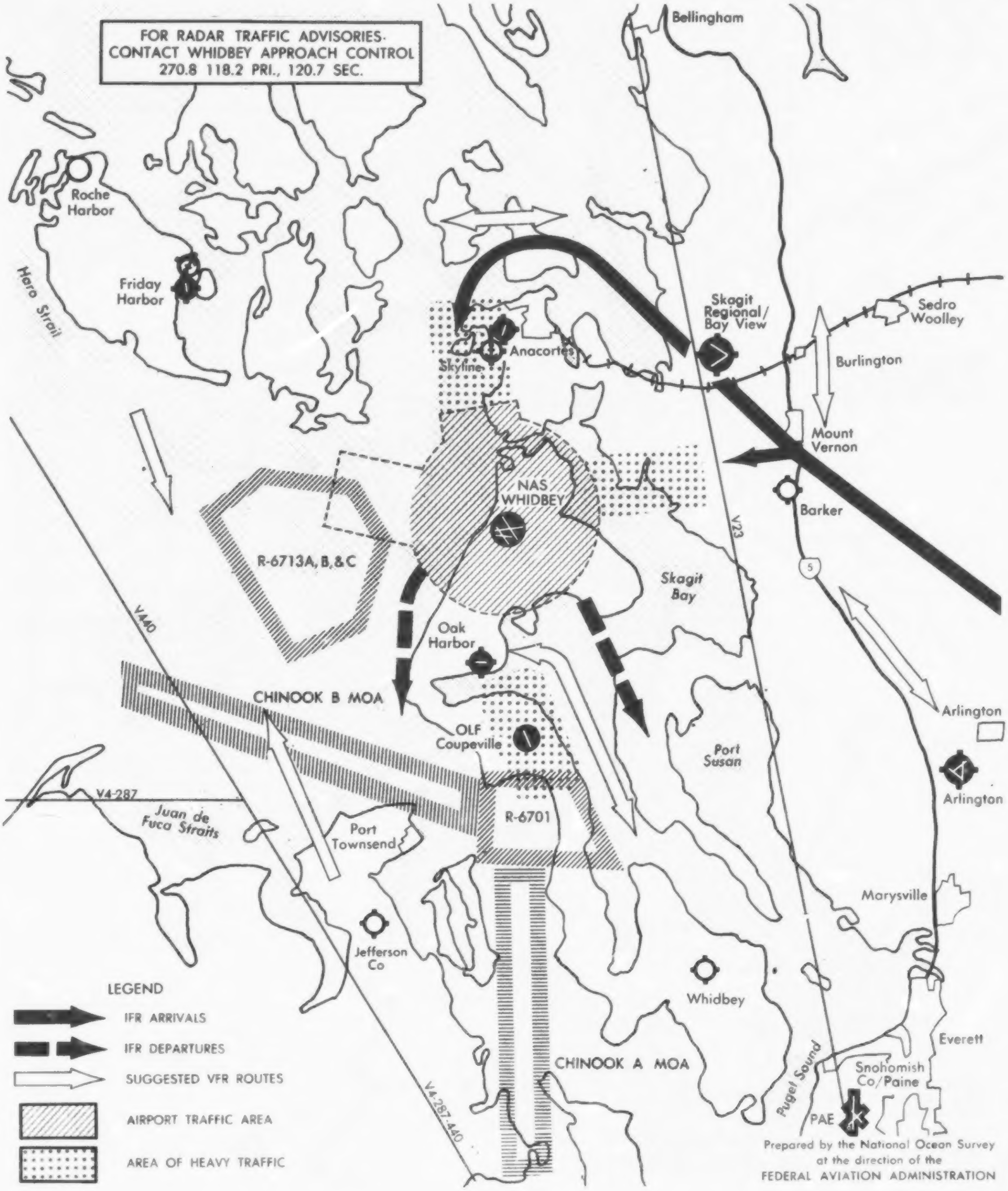
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WHIDBEY ISLAND, NAS WASHINGTON

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING NAS WHIDBEY FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, ARE ENCOURAGED TO CONTACT WHIDBEY APPROACH CONTROL FOR TRAFFIC ADVISORIES.

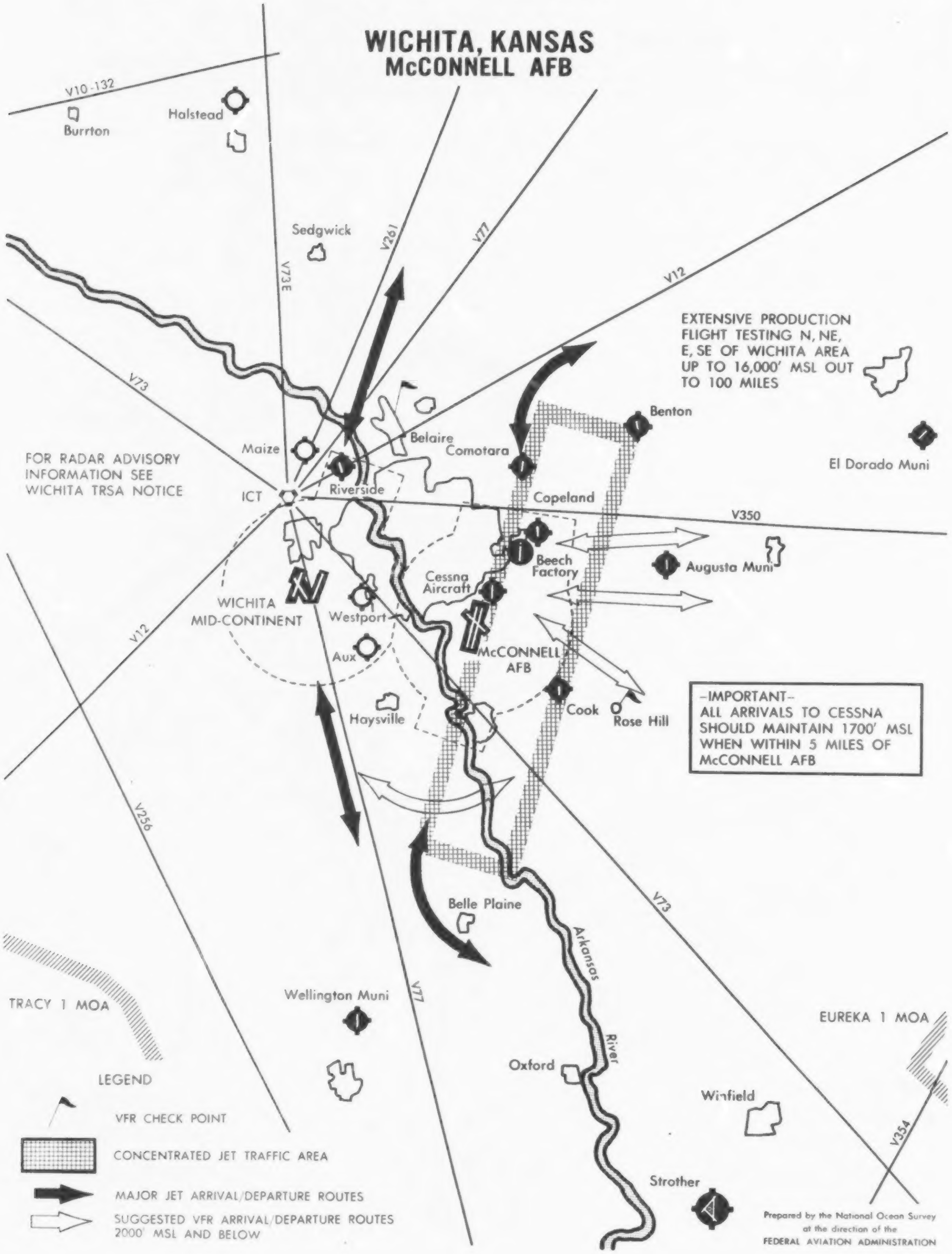

FOR RADAR TRAFFIC ADVISORIES·
CONTACT WHIDBEY APPROACH CONTROL
270.8 118.2 PRI., 120.7 SEC.
Bellingham
Roche Harbor
Friday Harbor
Haro Strait
Skagit Regional/ Bay View
Sedro Woolley
Burlington
Anacortes
Skyline
Mount Vernon
Barker
NAS WHIDBEY
V23
5
R-6713A, B, & C
Skagit Bay
V440
Oak Harbor
CHINOOK B MOA
OLF Coupeville
Arlington
Arlington
Port Susan
V4-287
Juan de Fuca Straits
Port Townsend
R-6701
Marysville
Jefferson Co
Whidbey
LEGEND
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC
Everett
Puget Sound
Snohomish Co/Paine
PAE
V4-287-440
CHINOOK A MOA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS
McCONNELL AFB


V10-132
Burrton
Halstead
Sedgwick
V73E
V261
V77
V12
V73
Maize
Belaire
Comotara
Benton
El Dorado Muni
ICT
Riverside
Copeland
V350
Beech Factory
Augusta Muni
Cessna Aircraft
WICHITA MID-CONTINENT
Westport
Aux
McCONNELL AFB
Cook
Rose Hill
Haysville
V12
V256
Belle Plaine
V73
Arkansas River
TRACY 1 MOA
Wellington Muni
V77
EUREKA 1 MOA
Oxford
Winfield
V354
Strother

EXTENSIVE PRODUCTION FLIGHT TESTING N, NE, E, SE OF WICHITA AREA UP TO 16,000' MSL OUT TO 100 MILES

FOR RADAR ADVISORY INFORMATION SEE WICHITA TRSA NOTICE

-IMPORTANT-
ALL ARRIVALS TO CESSNA SHOULD MAINTAIN 1700' MSL WHEN WITHIN 5 MILES OF McCONNELL AFB

LEGEND

- VFR CHECK POINT
- ▨ CONCENTRATED JET TRAFFIC AREA
- ➡ MAJOR JET ARRIVAL/DEPARTURE ROUTES
- ⇨ SUGGESTED VFR ARRIVAL/DEPARTURE ROUTES 2000' MSL AND BELOW

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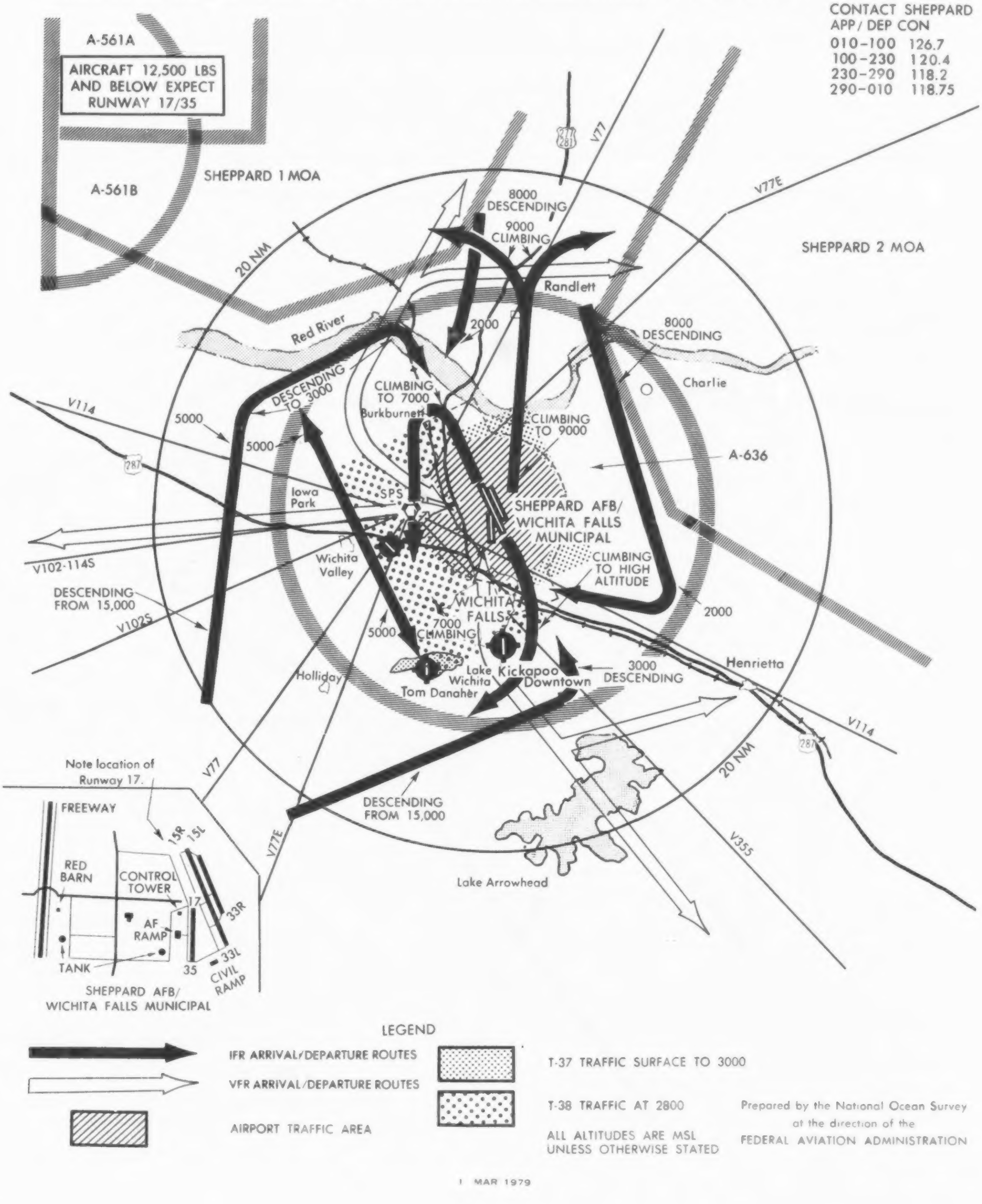
at the direction of the
FEDERAL AVIATION ADMINISTRATION

17 DEC 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA FALLS, TEXAS

THERE IS A HIGH VOLUME OF STUDENT JET OPERATIONS IN THE TERMINAL AREA. THE DARK ARROWS INDICATE JET IFR ARRIVAL AND DEPARTURE ROUTES THAT ARE MOST COMMONLY USED. RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTINGS ARE SHOWN BY THE LIGHT ARROWS. RECOMMEND VFR TRAFFIC STAY AT OR BELOW 2300 MSL IN VICINITY OF SHADED AREAS.


A-561A
AIRCRAFT 12,500 LBS AND BELOW EXPECT RUNWAY 17/35
A-561B
SHEPPARD 1 MOA
SHEPPARD 2 MOA
277
281
V77
V77E
8000 DESCENDING
9000 CLIMBING
Randlett
20 NM
Red River
2000
8000 DESCENDING
Charlie
DESCENDING TO 3000
CLIMBING TO 7000
Burkburnett
CLIMBING TO 9000
V114
287
5000
5000
A-636
Iowa Park
SPS
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL
V102-114S
Wichita Valley
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 15,000
V102S
WICHITA FALLS
2000
5000
7000 CLIMBING
Holliday
Lake Wichita
Kickapoo
Downtown
Tom Danaher
3000 DESCENDING
Henrietta
V114
287
20 NM
Note location of Runway 17.
FREEWAY
15R
15L
RED BARN
CONTROL TOWER
17
33R
AF RAMP
TANK
35
33L
CIVIL RAMP
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL
V77
V77E
DESCENDING FROM 15,000
V355
Lake Arrowhead

CONTACT SHEPPARD APP/DEP CON

010–100	126.7
100–230	120.4
230–290	118.2
290–010	118.75

LEGEND

➡	IFR ARRIVAL/DEPARTURE ROUTES	░	T-37 TRAFFIC SURFACE TO 3000
⇨	VFR ARRIVAL/DEPARTURE ROUTES	⁘	T-38 TRAFFIC AT 2800
▨	AIRPORT TRAFFIC AREA		

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

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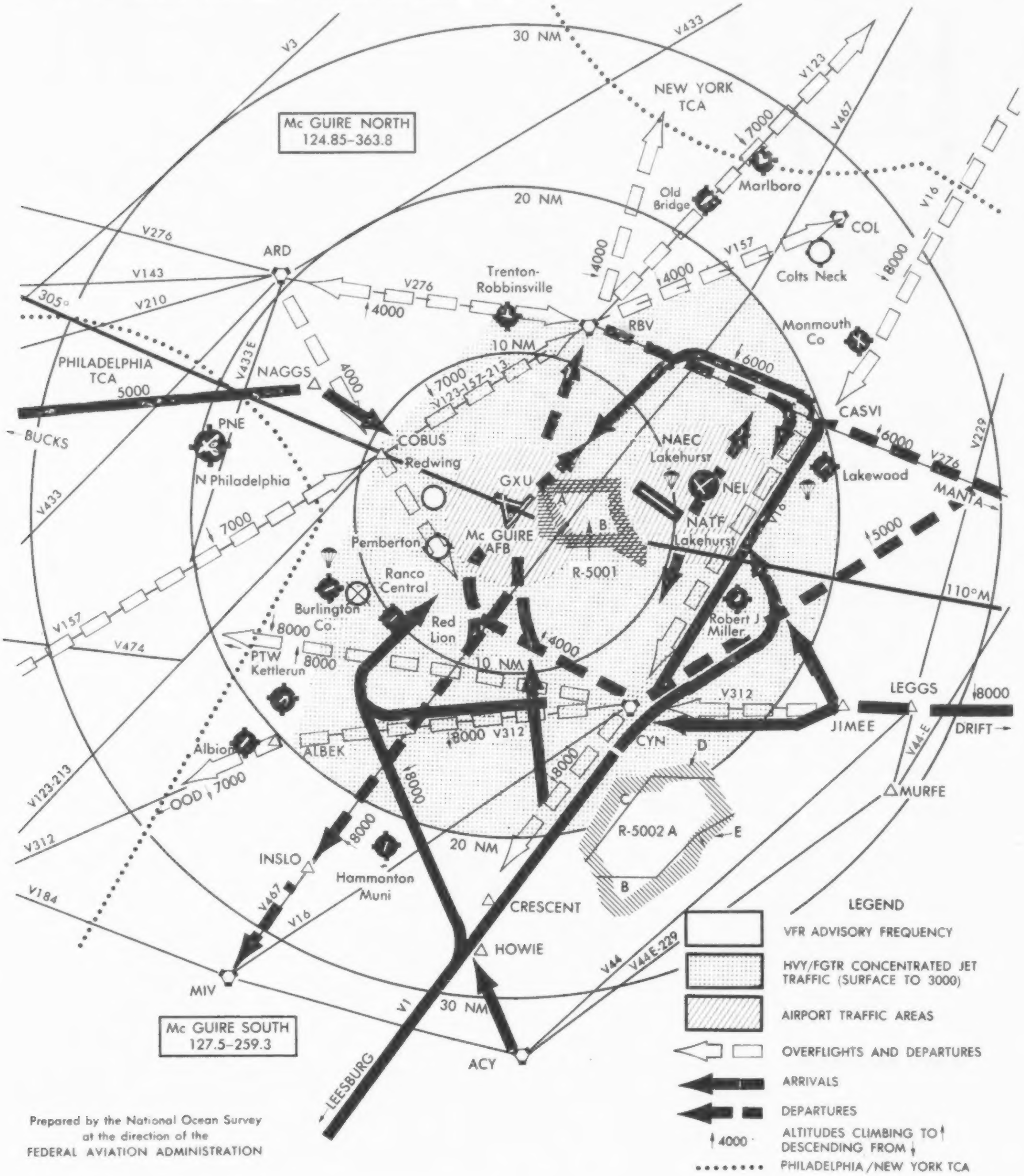
FEDERAL AVIATION ADMINISTRATION

1 MAR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WRIGHTSTOWN, Mc GUIRE AFB, NJ

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE Mc GUIRE RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT Mc GUIRE APPROACH (APPROPRIATE SECTOR) FOR TRAFFIC ADVISORIES.


30 NM
20 NM
10 NM
Mc GUIRE NORTH
124.85–363.8
Mc GUIRE SOUTH
127.5–259.3
NEW YORK
TCA
PHILADELPHIA
TCA
5000
V3
V433
V123
V467
V16
V276
V143
V210
V157
V433E
V474
V123-213
V312
V184
V467
V1
V44
V44E-229
V229
V44-E
V123-157-213
305°
110°M
ARD
Trenton-
Robbinsville
RBV
Old
Bridge
Marlboro
COL
Colts Neck
Monmouth
Co
CASVI
Lakewood
MANTA
NAGGS
COBUS
Redwing
GXU
Mc GUIRE
AFB
NAEC
Lakehurst
NEL
NATF
Lakehurst
A
B
R-5001
PNE
N Philadelphia
BUCKS
Pemberton
Ranco
Central
Burlington
Co.
Red
Lion
Robert J
Miller
PTW
Kettlerun
Albion
ALBEK
OOD
CYN
D
C
R-5002 A
E
B
JIMEE
LEGGS
DRIFT
MURFE
INSLO
Hammonton
Muni
CRESCENT
HOWIE
MIV
ACY
LEESBURG
7000
4000
6000
8000
5000
LEGEND
VFR ADVISORY FREQUENCY
HVY/FGTR CONCENTRATED JET TRAFFIC (SURFACE TO 3000)
AIRPORT TRAFFIC AREAS
OVERFLIGHTS AND DEPARTURES
ARRIVALS
DEPARTURES
4000
ALTITUDES CLIMBING TO ↑
DESCENDING FROM ↓
PHILADELPHIA/NEW YORK TCA

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FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON NATIONAL AIRPORT NOISE ABATEMENT PROCEDURES

DEPARTURES

JET AIRCRAFT – From take-off climb to 1500'. At 1500' reduce power to a target setting computed for hot day conditions at maximum gross take-off weight to give approximately 500' FPM climb. (In lieu of 1500' as the point of power reduction, the 2 mile DME fix* when departing northwest or northeast or the 3 mile DME fix* when departing south may be used). Maintain reduced power until past a 10 mile DME arc*. Upon reaching the 10 mile DME arc*, gradually increase power to normal climb settings. Follow the Potomac or Anacostia River routes described below unless otherwise advised by ATC.

ATC CLEARANCE TO "CONTINUE CLIMB" IN NO WAY ELIMINATES THE REQUIREMENT TO COMPLY WITH NOISE ABATEMENT PROCEDURES, EXCEPT THAT THE SPECIFIC ATC INSTRUCTION TO "EXPEDITE CLIMB" RELEASES THE PILOT FROM FURTHER COMPLIANCE WITH NOISE ABATEMENT PROCEDURES.

NORTHWEST – Potomac River to abeam Georgetown Reservoir thence continue over the river or via 325° Radial* until past the 10 mile DME arc.*

NORTHEAST – Anacostia River to the 5 mile DME fix*, continuing at reduced power past a 10 mile DME arc*.

SOUTH – Potomac River to the 5 mile DME fix*, continuing at reduced power past a 10 Mile DME arc*.

(*Washington (DCA) VOR/DME)

1-AND 2-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 2000' prior to turning on course unless instructed to turn sooner by ATC.

ARRIVALS

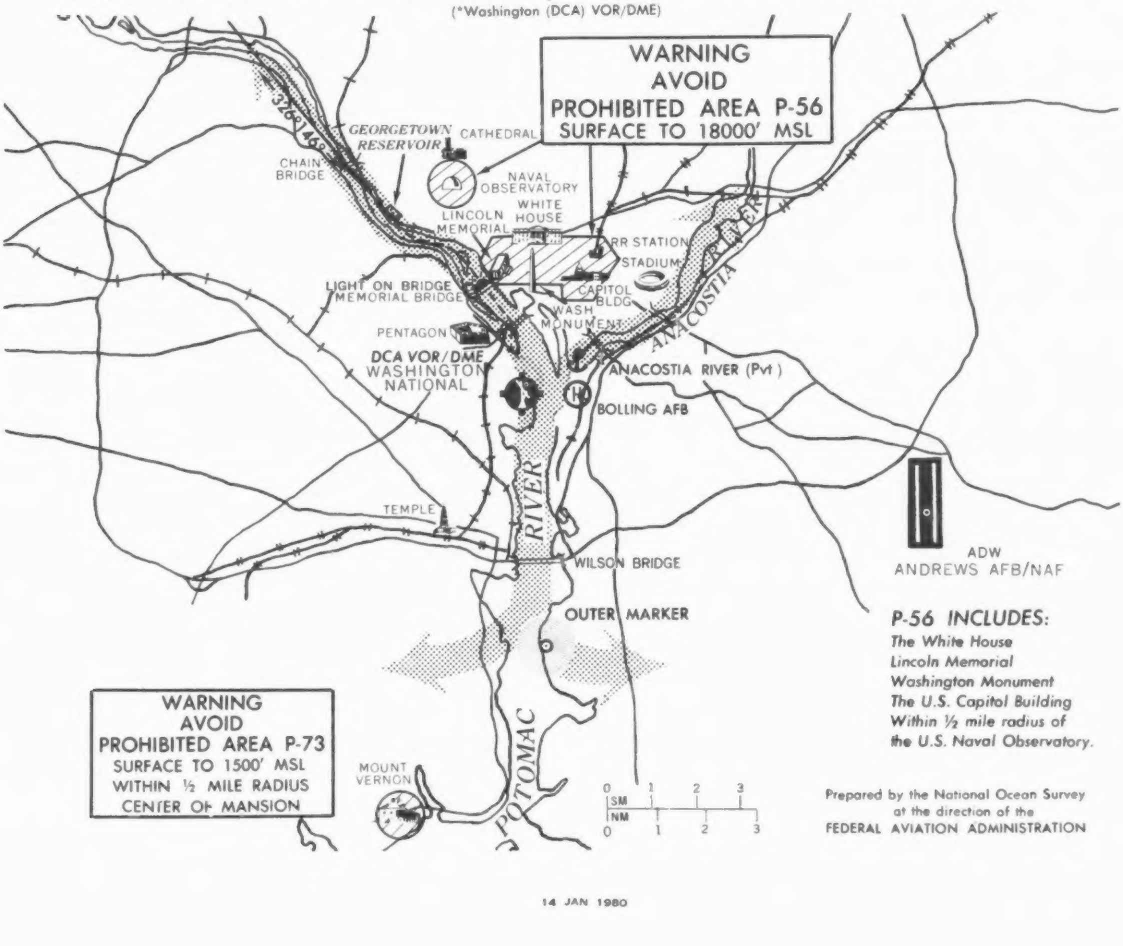
Aircraft shall be vectored so as to continue their approaches over the rivers while being spaced within the traffic flow.

Aircraft making IFR approaches from the northwest shall be cleared for a River Approach (Visual) when weather is 3500' and 3 miles or better. Radar vectors will be provided to the final approach course. When cleared for a River Approach, aircraft may visually follow the river to the airport or may proceed via the DCA VOR 326° radial (146° inbound) or via the LDA RWY 18 approach to abeam Georgetown Reservoir or the DCA 4 mile DME, then visually follow the river to the airport.

A light on Memorial Bridge is installed to assist pilots in staying over the Potomac River during approaches from the northwest.

Aircraft making IFR approaches from the south shall be cleared for a Mount Vernon Approach (Visual) when weather is 3000' and 4 miles or better. When so cleared, aircraft will proceed inbound via 187° radial* (007° inbound) to abeam Oxon NDB or 5.6 DME fix*, then will visually follow the river to the airport.

(*Washington (DCA) VOR/DME)


WARNING
AVOID
PROHIBITED AREA P-56
SURFACE TO 18000' MSL
326° 146°
GEORGETOWN RESERVOIR
CATHEDRAL
CHAIN BRIDGE
NAVAL OBSERVATORY
LINCOLN MEMORIAL
WHITE HOUSE
RR STATION
STADIUM
LIGHT ON BRIDGE MEMORIAL BRIDGE
CAPITOL BLDG
WASH MONUMENT
ANACOSTIA RIVER
PENTAGON
DCA VOR/DME
WASHINGTON NATIONAL
ANACOSTIA RIVER (Pvt)
BOLLING AFB
RIVER
TEMPLE
WILSON BRIDGE
ADW
ANDREWS AFB/NAF
OUTER MARKER
POTOMAC
MOUNT VERNON
WARNING
AVOID
PROHIBITED AREA P-73
SURFACE TO 1500' MSL
WITHIN ½ MILE RADIUS
CENTER OF MANSION
0 1 2 3 SM
NM 0 1 2 3

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol Building
Within ½ mile radius of the U.S. Naval Observatory.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREAS
(TRSA)

SERVICES PROVIDED

1. Services within a TRSA are provided on a voluntary pilot participation basis. ATC assumes that VFR aircraft entering or departing the TRSA want the service unless the pilot advises otherwise. If VFR pilots do not want the service, they should inform ground control or approach control, as appropriate, on initial contact by stating 'NEGATIVE STAGE III,' or by making a similar comment.

2. Radar vectoring and sequencing is provided on a full-time basis for all IFR and participating VFR aircraft landing at the primary airport, and at other airports if specifically advertised.

3. Separation between all participating VFR aircraft and all IFR aircraft operating within the TRSA is provided.

4. Radar advisories on all unidentified aircraft are provided on a workload permitting basis.

5. Service provided in a TRSA is also called Stage III Service and a more detailed explanation of the program is provided in the Airman's Information Manual, Part 1.

FLIGHT PROCEDURES

1. IFR Flights—Aircraft operating within the TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights

a. Airports within the TRSA:

(1) Arriving aircraft landing at airports within the TRSA are expected to contact Approach Control on specified frequencies in relation to geographical fixes depicted on the TRSA charts on the following pages. Initial contact should be made outside of the TRSA.

(2) Departing aircraft should inform ATC of their intended destination and/or route of flight and proposed cruising altitude. Departing aircraft will be advised by the tower when to contact departure control and given a frequency to be used.

b. Airports underlying the TRSA—Unless the flight will be conducted below the floor of the TRSA, arriving aircraft are expected to contact Approach Control on specified frequencies in relation to geographical fixes listed on the individual TRSA charts. Initial contact should be made outside of the TRSA.

c. Transiting aircraft—Aircraft desiring to transit the TRSA are expected to contact Departure/Approach Control on specified frequencies and in relation to geographical fixes listed on the individual TRSA charts.

ATC PROCEDURES

1. While operating within a TRSA, pilots are provided Stage III service and separation. In the event of a radar outage, separation and sequencing of VFR aircraft will be suspended as this service is depedent on radar. The pilot will be advised that the service is not available and issued wind, runway information, and the time or place to contact the tower. Traffic information will be provided on a workload-permitting basis.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio).

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

> NOTE: Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

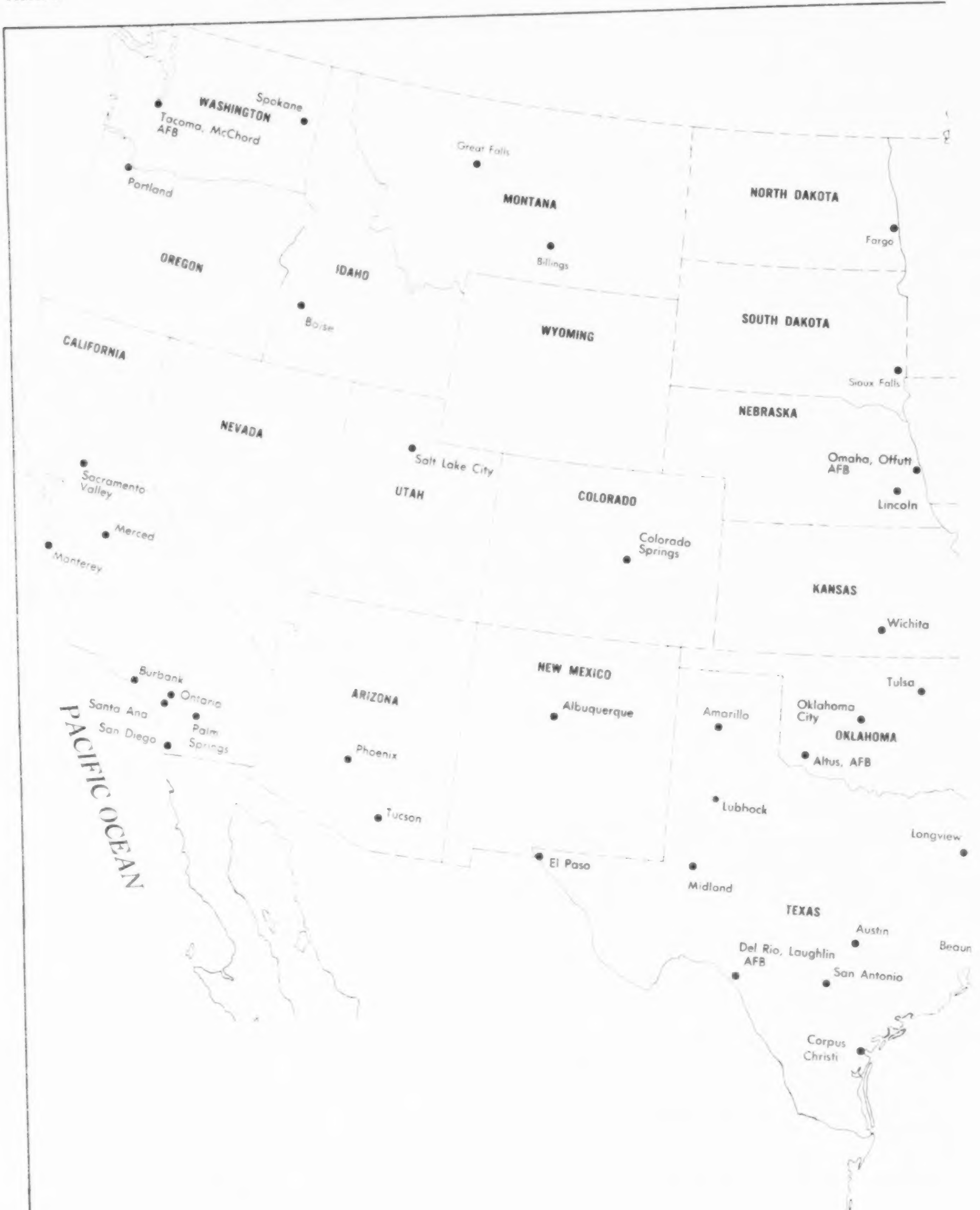
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

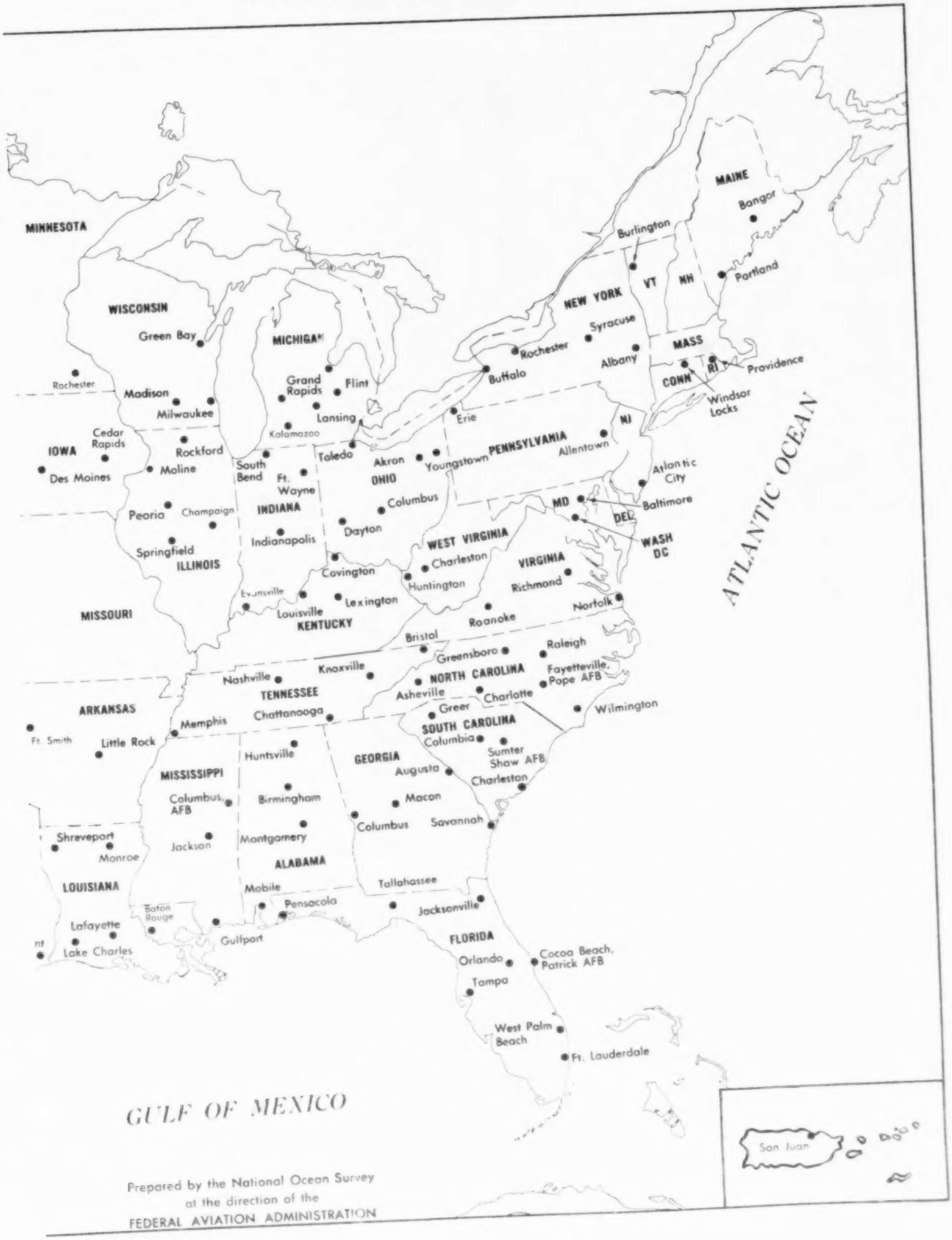
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

INDEX OF TERMINAL RADAR SERVICE AREAS


WASHINGTON
Spokane
Tacoma, McChord AFB
Portland
Great Falls
MONTANA
NORTH DAKOTA
Fargo
Billings
OREGON
IDAHO
Boise
WYOMING
SOUTH DAKOTA
CALIFORNIA
Sioux Falls
NEBRASKA
NEVADA
Salt Lake City
Omaha, Offutt AFB
Lincoln
Sacramento Valley
UTAH
COLORADO
Merced
Monterey
Colorado Springs
KANSAS
Wichita
Burbank
Ontario
Santa Ana
San Diego
Palm Springs
PACIFIC OCEAN
ARIZONA
NEW MEXICO
Albuquerque
Amarillo
Tulsa
Oklahoma City
OKLAHOMA
Altus, AFB
Phoenix
Tucson
Lubbock
Longview
El Paso
Midland
TEXAS
Austin
Beaun
Del Rio, Laughlin AFB
San Antonio
Corpus Christi

29 NOV 1979

INDEX OF TERMINAL RADAR SERVICE AREAS


MINNESOTA
MAINE
Bangor
Burlington
Portland
VT
NH
NEW YORK
WISCONSIN
Green Bay
MICHIGAN
Syracuse
Rochester
Albany
MASS
Buffalo
Providence
CONN
RI
Windsor Locks
Rochester
Madison
Milwaukee
Grand Rapids
Flint
Lansing
Kalamazoo
Erie
NJ
PENNSYLVANIA
Allentown
IOWA
Cedar Rapids
Des Moines
Rockford
Moline
South Bend
Ft. Wayne
Toledo
Akron
Youngstown
OHIO
Atlantic City
ATLANTIC OCEAN
INDIANA
Columbus
MD
Baltimore
DEL
WASH DC
Peoria
Champaign
Springfield
ILLINOIS
Indianapolis
Dayton
WEST VIRGINIA
Charleston
Huntington
VIRGINIA
Richmond
Covington
Evansville
Louisville
Lexington
KENTUCKY
MISSOURI
Norfolk
Roanoke
Bristol
Greensboro
Raleigh
Nashville
Knoxville
NORTH CAROLINA
Fayetteville, Pope AFB
TENNESSEE
Asheville
Charlotte
ARKANSAS
Memphis
Chattanooga
Greer
Wilmington
Ft. Smith
Little Rock
SOUTH CAROLINA
Columbia
Sumter Shaw AFB
Huntsville
GEORGIA
Augusta
MISSISSIPPI
Charleston
Columbus, AFB
Birmingham
Macon
Columbus
Savannah
Shreveport
Monroe
Jackson
Montgomery
ALABAMA
LOUISIANA
Mobile
Tallahassee
Pensacola
Jacksonville
Baton Rouge
Lafayette
Lake Charles
Gulfport
FLORIDA
Orlando
Cocoa Beach, Patrick AFB
Tampa
West Palm Beach
Ft. Lauderdale
GULF OF MEXICO
San Juan

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

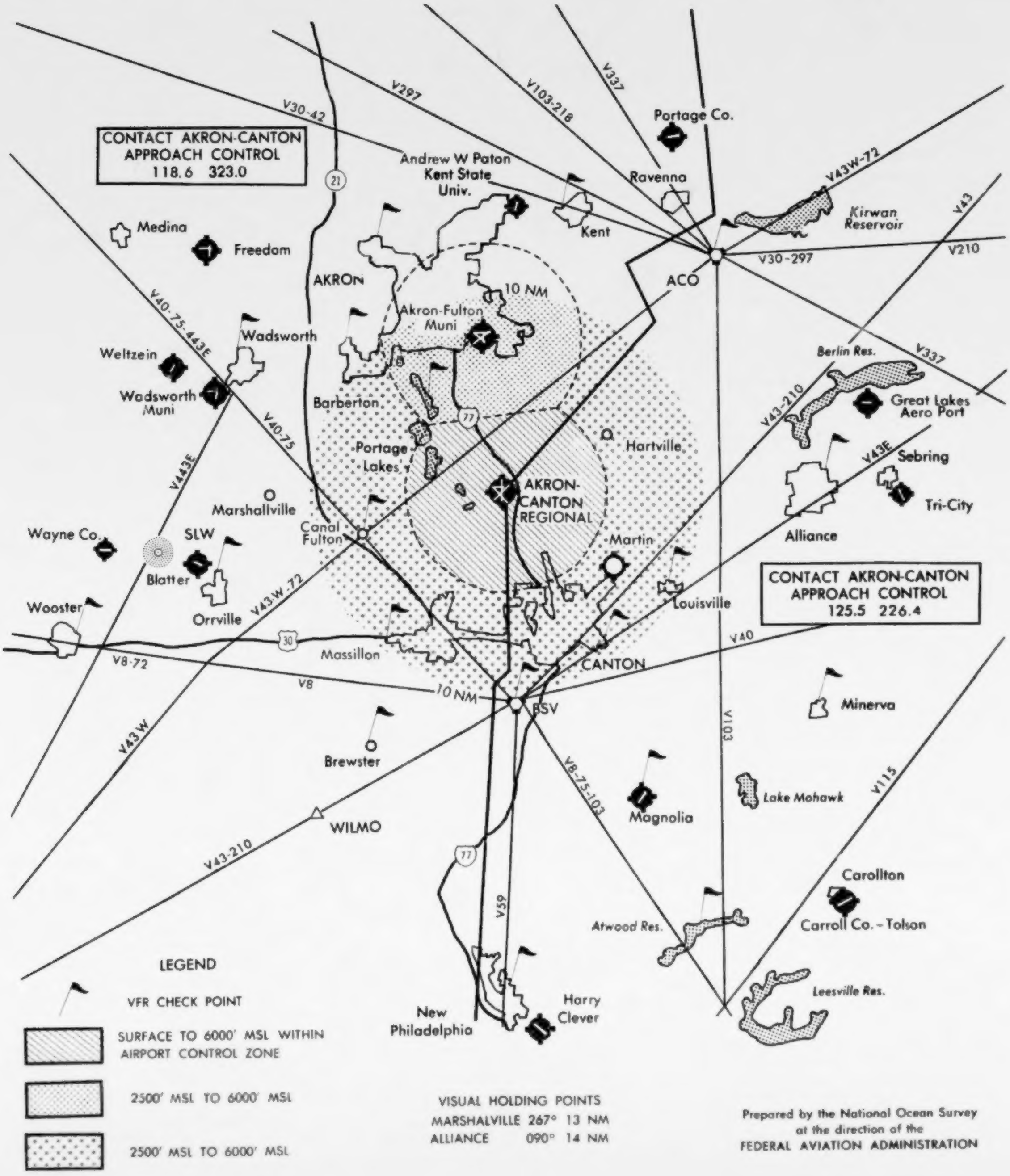
TABLE OF CONTENTS

NEW GRAPHIC-★
MAJOR REVISION-†

Akron, Oh. TRSA-5
Albany, N.Y. TRSA-6
Albuquerque, N.M. TRSA-7
Allentown, Pa. TRSA-8
Altus, AFB, Ok. TRSA-9
Amarillo, Tx. TRSA-10
Asheville, N.C. TRSA-11
Atlantic City, N. J. †TRSA-12
Augusta, Ga. TRSA-13
Austin, Tx. ★TRSA-14
Baltimore, Md. TRSA-15
Bangor, Me. †TRSA-16
Baton Rouge, La. TRSA-17
Beaumont, Tx. †TRSA-18
Billings, Mt. TRSA-19
Birmingham, Al. TRSA-20
Boise, Id. TRSA-21
Bristol, Tn. TRSA-22
Buffalo, N.Y. TRSA-23
Burbank, Ca. TRSA-24
Burlington, Vt. TRSA-25
Cedar Rapids, Ia. TRSA-26
Champaign, Il. TRSA-27
Charleston, S.C. TRSA-28
Charleston, W.V. TRSA-29
Charlotte, N.C. TRSA-30
Chattanooga, Tn. TRSA-31
Cincinnati, Ohio (See Covington, Ky.)
Cocoa Beach, Patrick AFB, Fl. TRSA-32
Colorado Springs, Co. TRSA-33
Columbia, S.C. TRSA-34
Columbus, Ga. TRSA-35
Columbus AFB, Ms. TRSA-36
Columbus, Oh. TRSA-37
Corpus Christi, Tx. TRSA-38
Covington, Ky. TRSA-39
Dayton, Oh. TRSA-40
Del Rio, Laughlin AFB, Tx. TRSA-41
Des Moines, Ia. TRSA-42
El Paso, Tx. †TRSA-43
Erie, Pa. TRSA-44
Evansville, In. TRSA-45
Fargo, N.D. TRSA-46
Fayetteville, Pope AFB, N.C. TRSA-47
Flint, Mi. TRSA-48
Ft. Lauderdale, Fl. TRSA-49
Ft. Smith, Ar. TRSA-50
Ft. Wayne, In. TRSA-51
Grand Rapids, Mi. TRSA-52
Great Falls, Mt. TRSA-53
Green Bay, Wi. TRSA-54
Greensboro, N.C. †TRSA-55
Greer, S.C. TRSA-56
Gulfport, Ms. TRSA-57
Huntington, W.V. TRSA-58
Huntsville, Al. TRSA-59
Indianapolis, In. TRSA-60
Jackson, Ms. TRSA-61
Jacksonville, Fl. TRSA-62
Kalamazoo, Mi. TRSA-63
Knoxville, Tn. TRSA-64
Lafayette, La. TRSA-65
Lake Charles, La †TRSA-66
Lansing, Mi. TRSA-67
Lexington, Ky. TRSA-68
Lincoln, Nb. TRSA-69
Little Rock, Ar. TRSA-70
Longview, Tx. TRSA-71
Louisville, Ky. TRSA-72
Lubbock, Tx. TRSA-73
Macon, Ga. TRSA-74
Madison, Wi. TRSA-75
Memphis, Tn. TRSA-76
Merced, Ca. TRSA-77
Midland, Tx. TRSA-78
Milwaukee, Wi. TRSA-79
Mobile, Al. TRSA-80
Moline, Il. TRSA-81
Monroe, La. TRSA-82
Monterey, Ca. ★TRSA-83
Montgomery, Al. TRSA-84
Nashville, Tn. TRSA-85
Norfolk, Va. TRSA-86
Oklahoma City, Ok. †TRSA-87
Omaha, Offutt AFB, Nb. TRSA-88
Ontario, Ca. TRSA-89
Orlando, Fl. TRSA-90
Palm Springs, Ca. ★TRSA-91
Pensacola, Fl. †TRSA-92
Peoria, Il. TRSA-93
Phoenix, Az. TRSA-94
Portland, Me. ★TRSA-95
Portland, Or. TRSA-96
Providence, R.I. TRSA-97
Raleigh, N.C. TRSA-98
Richmond, Va. TRSA-99
Roanoke, Va. TRSA-100
Rochester, Mn. TRSA-101
Rochester, N.Y. TRSA-102
Rockford, Il. TRSA-103
Sacramento Valley, Ca. TRSA-104
Saginaw, Mi. TRSA-105
Salt Lake City, Ut. TRSA-106
San Antonio, Tx. TRSA-107
San Diego, Ca. TRSA-108
San Juan, P.R. †TRSA-109
Santa Ana, Ca. TRSA-110
Savannah, Ga. TRSA-111
Shreveport, La. †TRSA-112
Sioux Falls, S.D. †TRSA-113
South Bend, In. TRSA-114
Spokane, Wa. TRSA-115
Springfield, Il. TRSA-116
Sumter, Shaw AFB, S.C. TRSA-117
Syracuse, N.Y. TRSA-118
Tacoma, McChord AFB, Wa. TRSA-119
Tallahassee, Fl. †TRSA-120
Tampa, Fl. TRSA-121
Toledo, Oh. TRSA-122
Tucson, Az. TRSA-123
Tulsa, Ok. TRSA-124
Washington, D.C. TRSA-125
West Palm Beach, Fl. TRSA-126
Wichita, Ks. TRSA-127
Wilmington, N.C. TRSA-128
Windsor Locks, Ct. TRSA-129
Youngstown, Oh. TRSA-130

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AKRON, OHIO. AKRON-CANTON REGIONAL ARPT.
FIELD ELEV. 1228′ MSL


CONTACT AKRON-CANTON APPROACH CONTROL 118.6 323.0
CONTACT AKRON-CANTON APPROACH CONTROL 125.5 226.4
V30-42
V297
V103-218
V337
Portage Co.
Andrew W Paton
Kent State Univ.
Ravenna
Kent
V43W-72
Kirwan Reservoir
V43
V210
V30-297
ACO
21
Medina
Freedom
AKRON
10 NM
Akron-Fulton Muni
V40-75-443E
Wadsworth
Weltzein
Wadsworth Muni
Barberton
77
Berlin Res.
V337
Great Lakes Aero Port
V43-210
Hartville
Portage Lakes
V40-75
Sebring
V43E
Tri-City
V443E
AKRON-CANTON REGIONAL
Marshallville
Alliance
Canal Fulton
Martin
Wayne Co.
SLW
Blatter
Louisville
Orrville
V43W-72
Wooster
30
V8-72
Massillon
V40
CANTON
V8
10 NM
BSV
Minerva
V103
V43W
Brewster
V8-75-103
V115
Magnolia
Lake Mohawk
WILMO
V43-210
77
Carollton
Carroll Co. - Tolson
V59
Atwood Res.
Harry Clever
Leesville Res.
New Philadelphia
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
2500′ MSL TO 6000′ MSL
2500′ MSL TO 6000′ MSL

VISUAL HOLDING POINTS
MARSHALVILLE 267° 13 NM
ALLIANCE 090° 14 NM

Prepared by the National Ocean Survey
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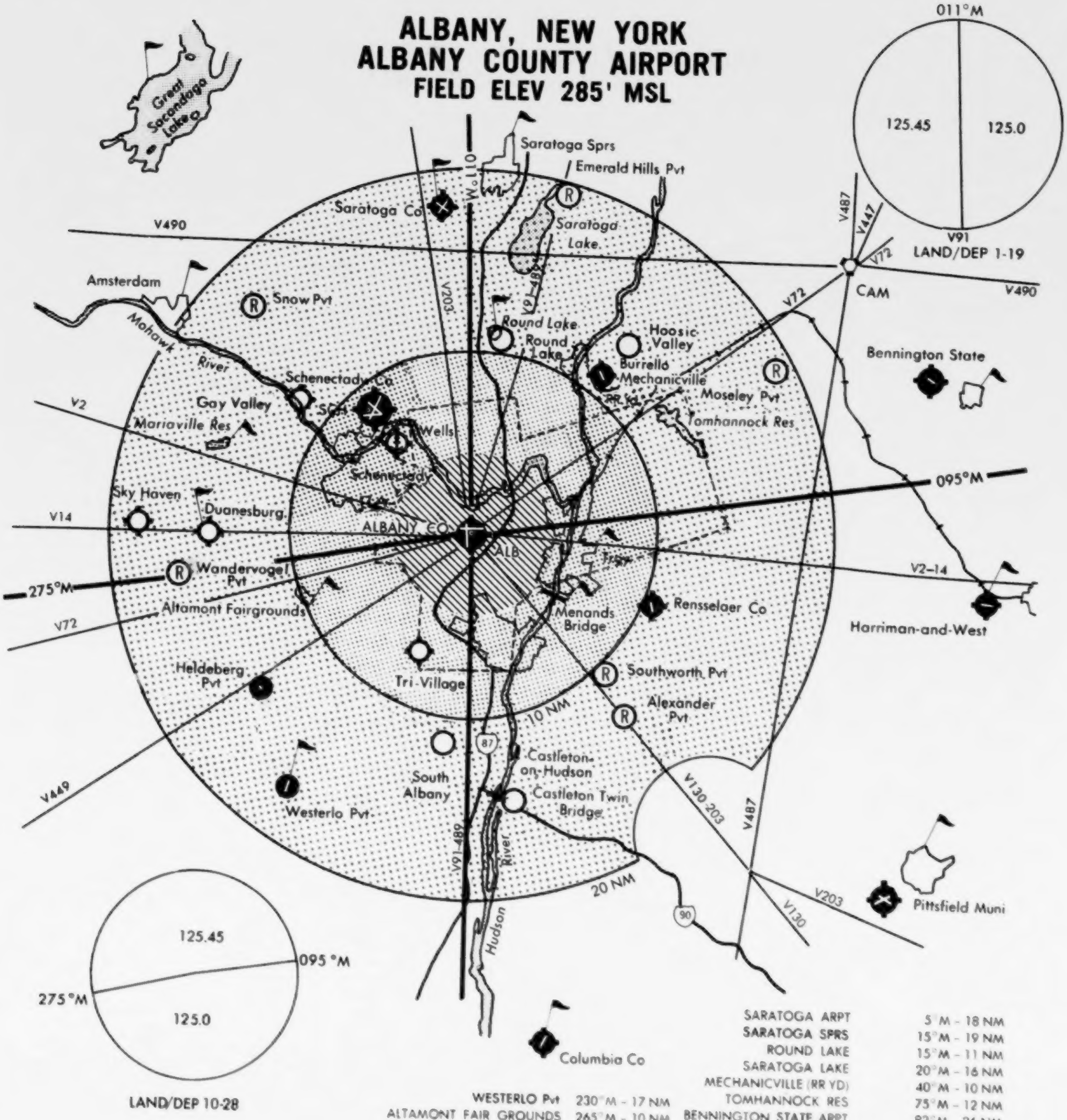
19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALBANY, NEW YORK
ALBANY COUNTY AIRPORT
FIELD ELEV 285' MSL


011°M
125.45
125.0
V91
LAND/DEP 1-19
Great Sacandaga Lake
Saratoga Sprs
Emerald Hills Pvt
Saratoga Co
Saratoga Lake
V490
V487
V447
V72
CAM
Amsterdam
Snow Pvt
Mohawk River
V203
V91-489
Round Lake
Hoosic Valley
Burrello Mechanicville
RR Yd
Moseley Pvt
Tomhannock Res
Bennington State
Schenectady Co
Gay Valley
SCH
Mariaville Res
Wells
Schenectady
V2
Sky Haven
Duanesburg
V14
ALBANY CO
ALB
Troy
095°M
275°M
Wandervogel Pvt
Altamont Fairgrounds
V2-14
Harriman-and-West
Rensselaer Co
Menands Bridge
Heldeberg Pvt
Tri-Village
Southworth Pvt
Alexander Pvt
10 NM
87
Castleton-on-Hudson
South Albany
Castleton Twin Bridge
V449
Westerlo Pvt
V130-203
Hudson River
20 NM
90
V130
V203
Pittsfield Muni
125.45
095°M
275°M
125.0
Columbia Co
LAND/DEP 10-28

LEGEND

▨ SURFACE TO 10,000' MSL

▨ 2000' TO 10,000' MSL

▨ 5000' TO 10,000' MSL

VFR CHECK POINTS

WESTERLO Pvt	230°M - 17 NM
ALTAMONT FAIR GROUNDS	265°M - 10 NM
DUANESBURG ARPT	285°M - 14 NM
MARIAVILLE RES	300°M - 15 NM
AMSTERDAM	320°M - 20 NM
SCHENECTADY CO	320°M - 8 NM
GREAT SACANDAGA RES	340°M - 30 NM

SARATOGA ARPT	5°M - 18 NM
SARATOGA SPRS	15°M - 19 NM
ROUND LAKE	15°M - 11 NM
SARATOGA LAKE	20°M - 16 NM
MECHANICVILLE (RR YD)	40°M - 10 NM
TOMHANNOCK RES	75°M - 12 NM
BENNINGTON STATE ARPT	82°M - 26 NM
TROY	110°M - 6 NM
NORTH ADAMS ARPT	110°M - 28 NM
RENSSELAER CO ARPT	125°M - 10 NM
MENANDS BRIDGE	140°M - 5 NM
PITTSFIELD ARPT	145°M - 29 NM
COLUMBIA CO ARPT	182°M - 27 NM
CASTLETON (TWIN BRIDGE)	185°M - 14 NM

NOTE: VFR AIRCRAFT VERIFY LANDING/DEPARTURE RUNWAY ON ATIS TO DETERMINE APPROACH/DEPARTURE CONTROL FREQUENCY. 120.45

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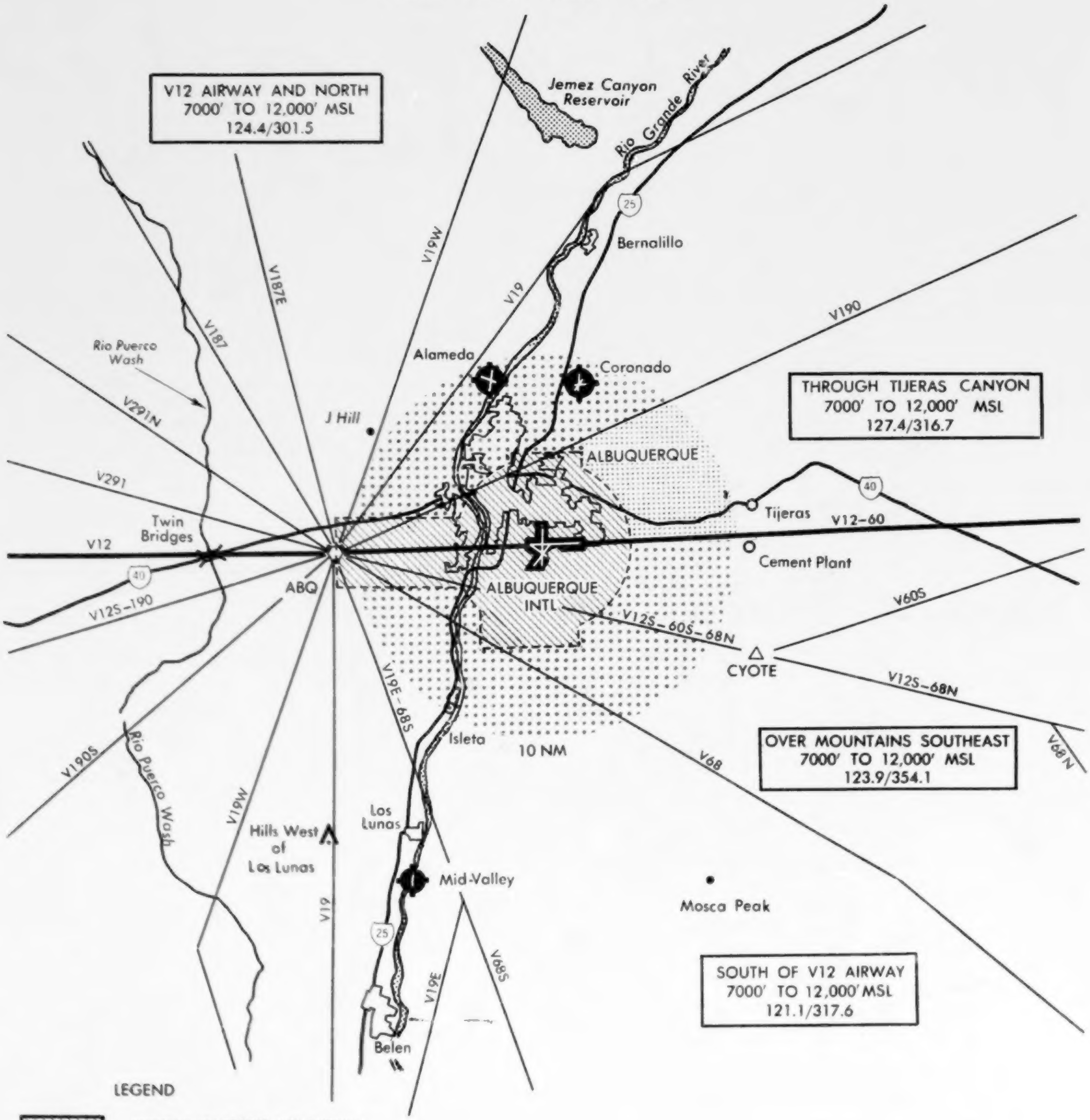
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALBUQUERQUE, NEW MEXICO
ALBUQUERQUE INTERNATIONAL AIRPORT
FIELD ELEV. 5352′ MSL


V12 AIRWAY AND NORTH
7000′ TO 12,000′ MSL
124.4/301.5
Jemez Canyon Reservoir
Rio Grande River
25
Bernalillo
V19W
V187E
V19
V190
Rio Puerco Wash
V187
V291N
Alameda
Coronado
J Hill
THROUGH TIJERAS CANYON
7000′ TO 12,000′ MSL
127.4/316.7
ALBUQUERQUE
V291
40
Tijeras
V12-60
Twin Bridges
V12
Cement Plant
40
ABQ
ALBUQUERQUE INTL
V60S
V12S-190
V12S-60S-68N
CYOTE
V12S-68N
V19E-68S
Isleta
10 NM
OVER MOUNTAINS SOUTHEAST
7000′ TO 12,000′ MSL
123.9/354.1
V68N
V68
V190S
Rio Puerco Wash
V19W
Los Lunas
Hills West of Los Lunas
Mid-Valley
Mosca Peak
V19
25
V68S
V19E
SOUTH OF V12 AIRWAY
7000′ TO 12,000′ MSL
121.1/317.6
Belen

LEGEND

▨ SURFACE TO 12000′ MSL WITHIN AIRPORT CONTROL ZONE

⁙ 7000′ TO 12,000′ MSL

░ 10,000′ TO 12,000′ MSL

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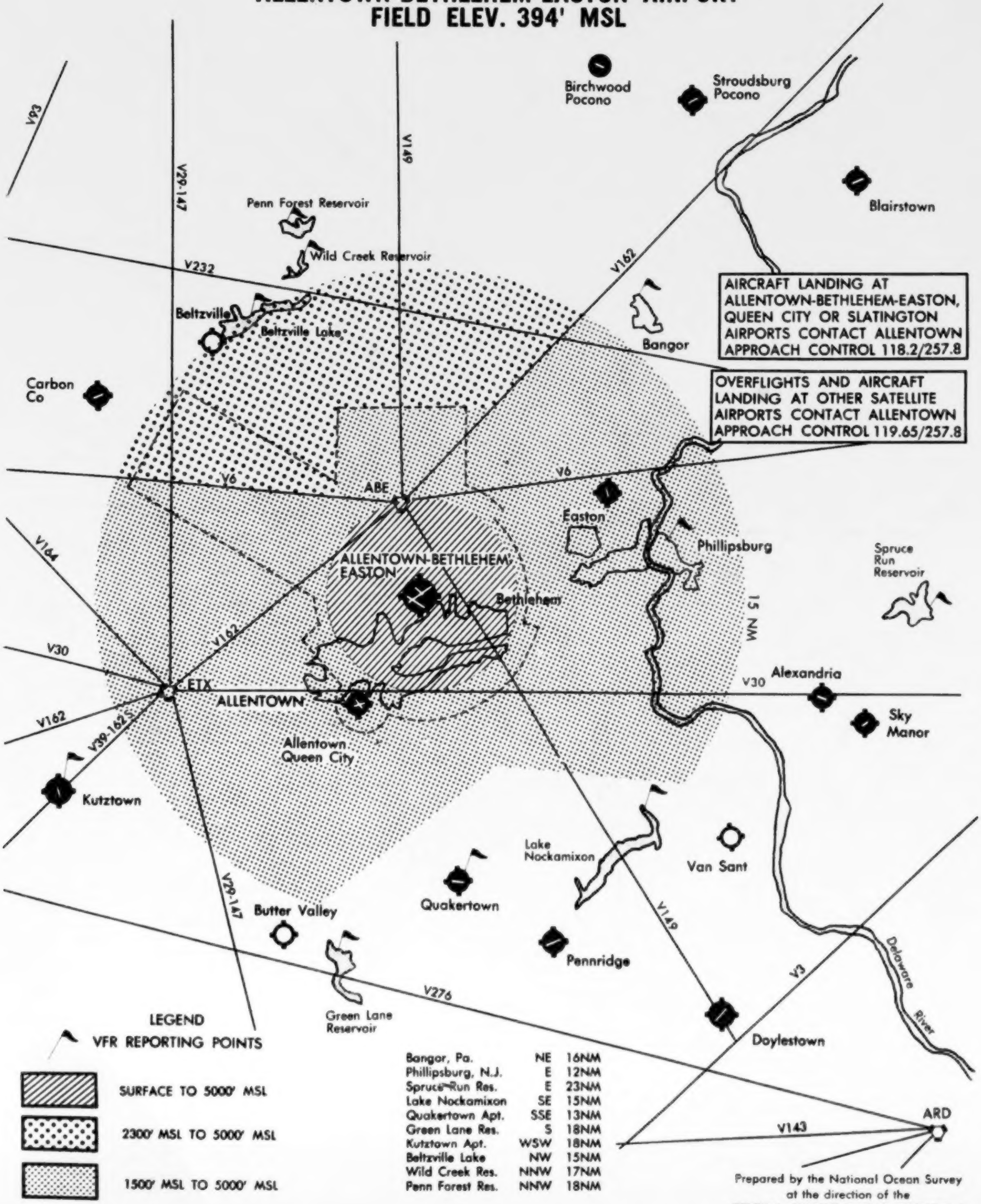
22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALLENTOWN, PENNSYLVANIA
ALLENTOWN-BETHLEHEM-EASTON AIRPORT
FIELD ELEV. 394' MSL


V93
V29-147
V149
Birchwood Pocono
Stroudsburg Pocono
Blairstown
Penn Forest Reservoir
Wild Creek Reservoir
V232
V162
Beltzville
Beltzville Lake
Bangor
Carbon Co
V6
ABE
V6
Easton
Phillipsburg
Spruce Run Reservoir
V164
ALLENTOWN-BETHLEHEM-EASTON
Bethlehem
15 NM
V30
ETX
V162
ALLENTOWN
V30
Alexandria
Sky Manor
V162
V39-162
Allentown Queen City
Kutztown
Lake Nockamixon
Van Sant
V29-147
Butter Valley
Quakertown
V149
Pennridge
V3
Delaware River
V276
Green Lane Reservoir
Doylestown
V143
ARD
LEGEND
VFR REPORTING POINTS
SURFACE TO 5000' MSL
2300' MSL TO 5000' MSL
1500' MSL TO 5000' MSL

AIRCRAFT LANDING AT ALLENTOWN-BETHLEHEM-EASTON, QUEEN CITY OR SLATINGTON AIRPORTS CONTACT ALLENTOWN APPROACH CONTROL 118.2/257.8

OVERFLIGHTS AND AIRCRAFT LANDING AT OTHER SATELLITE AIRPORTS CONTACT ALLENTOWN APPROACH CONTROL 119.65/257.8

Bangor, Pa.	NE	16NM
Phillipsburg, N.J.	E	12NM
Spruce Run Res.	E	23NM
Lake Nockamixon	SE	15NM
Quakertown Apt.	SSE	13NM
Green Lane Res.	S	18NM
Kutztown Apt.	WSW	18NM
Beltzville Lake	NW	15NM
Wild Creek Res.	NNW	17NM
Penn Forest Res.	NNW	18NM

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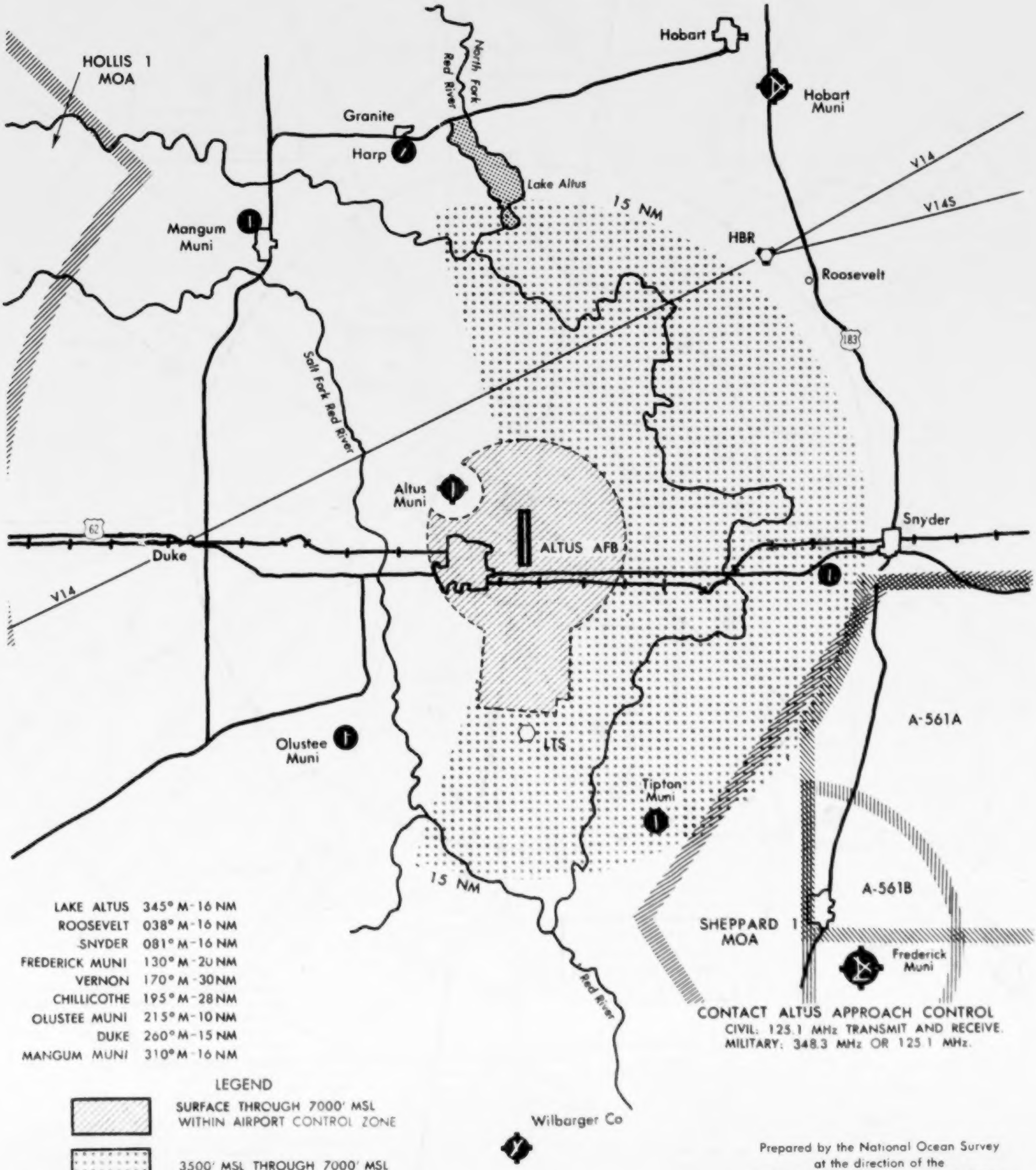
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ALTUS, OKLAHOMA
ALTUS AFB
FIELD ELEV. 1378′ MSL


HOLLIS 1
MOA
Granite
Harp
North Fork Red River
Hobart
Hobart Muni
Lake Altus
15 NM
V14
V145
HBR
Roosevelt
Mangum Muni
183
Salt Fork Red River
Altus Muni
62
ALTUS AFB
Duke
V14
Snyder
A-561A
LTS
Olustee Muni
Tipton Muni
15 NM
A-561B
SHEPPARD 1
MOA
Frederick Muni
Red River
Wilbarger Co

LAKE ALTUS	345° M-16 NM
ROOSEVELT	038° M-16 NM
SNYDER	081° M-16 NM
FREDERICK MUNI	130° M-20 NM
VERNON	170° M-30 NM
CHILLICOTHE	195° M-28 NM
OLUSTEE MUNI	215° M-10 NM
DUKE	260° M-15 NM
MANGUM MUNI	310° M-16 NM

CONTACT ALTUS APPROACH CONTROL
CIVIL: 125.1 MHz TRANSMIT AND RECEIVE.
MILITARY: 348.3 MHz OR 125.1 MHz.

LEGEND

▨	SURFACE THROUGH 7000′ MSL WITHIN AIRPORT CONTROL ZONE
░	3500′ MSL THROUGH 7000′ MSL

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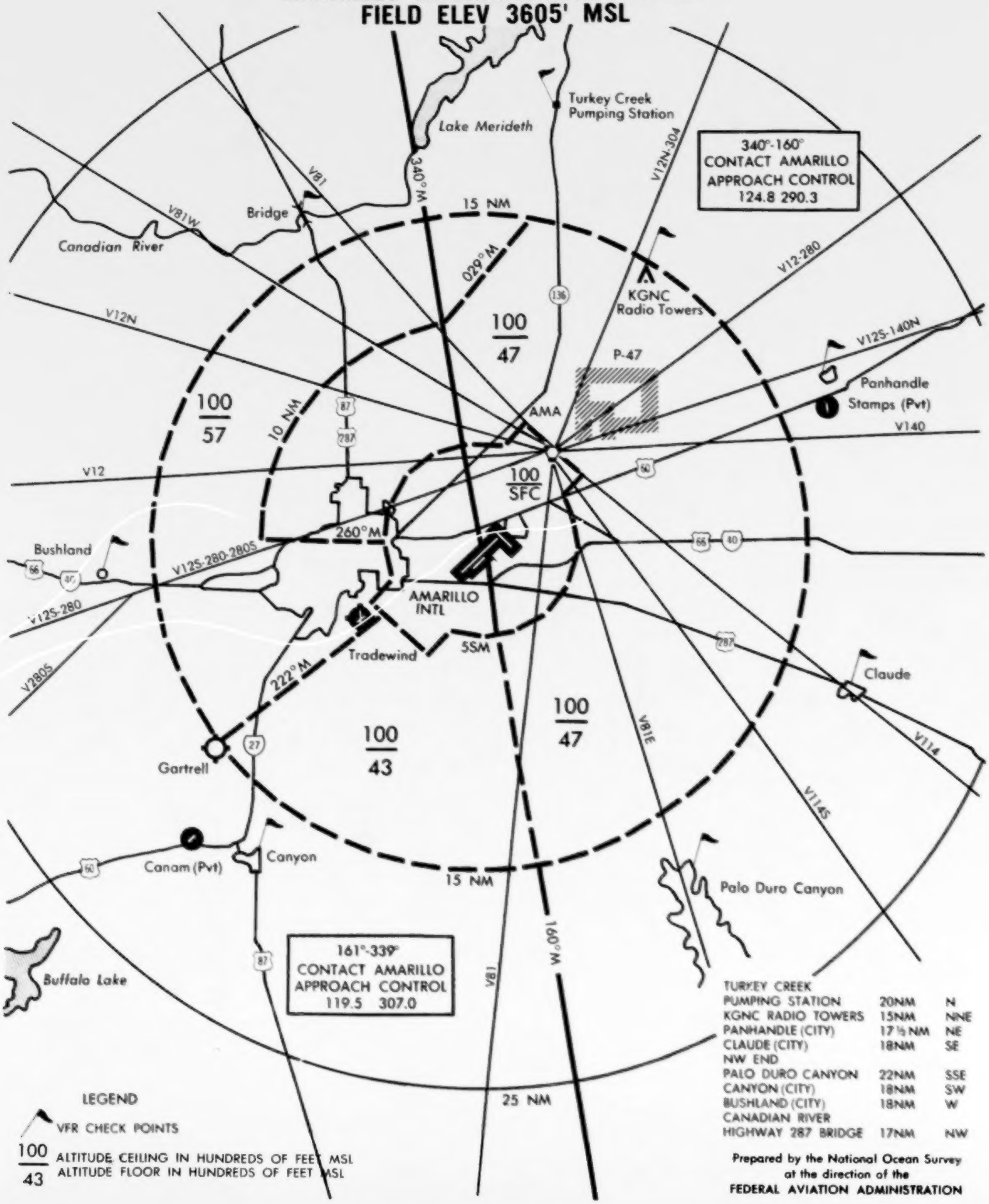
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL AIRPORT
FIELD ELEV 3605' MSL


Lake Merideth
Turkey Creek
Pumping Station
V12N-304
340°M
V81
V81W
Bridge
Canadian River
15 NM
029°M
136
KGNC
Radio Towers
V12-280
V12N
100
47
P-47
V12S-140N
Panhandle
Stamps (Pvt)
V140
100
57
10 NM
87
287
AMA
V12
100
SFC
60
260°M
66
40
Bushland
66
40
V12S-280-280S
V12S-280
AMARILLO
INTL
287
V280S
222°M
Tradewind
5SM
Claude
100
47
V81E
100
43
27
V114
Gartrell
V114S
Canam (Pvt)
Canyon
60
15 NM
Palo Duro Canyon
160°M
87
V81
Buffalo Lake
25 NM

340°-160°
CONTACT AMARILLO
APPROACH CONTROL
124.8 290.3

161°-339°
CONTACT AMARILLO
APPROACH CONTROL
119.5 307.0

LEGEND

VFR CHECK POINTS

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
43 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

TURKEY CREEK PUMPING STATION	20NM	N
KGNC RADIO TOWERS	15NM	NNE
PANHANDLE (CITY)	17 ½ NM	NE
CLAUDE (CITY) NW END	18NM	SE
PALO DURO CANYON	22NM	SSE
CANYON (CITY)	18NM	SW
BUSHLAND (CITY)	18NM	W
CANADIAN RIVER HIGHWAY 287 BRIDGE	17NM	NW

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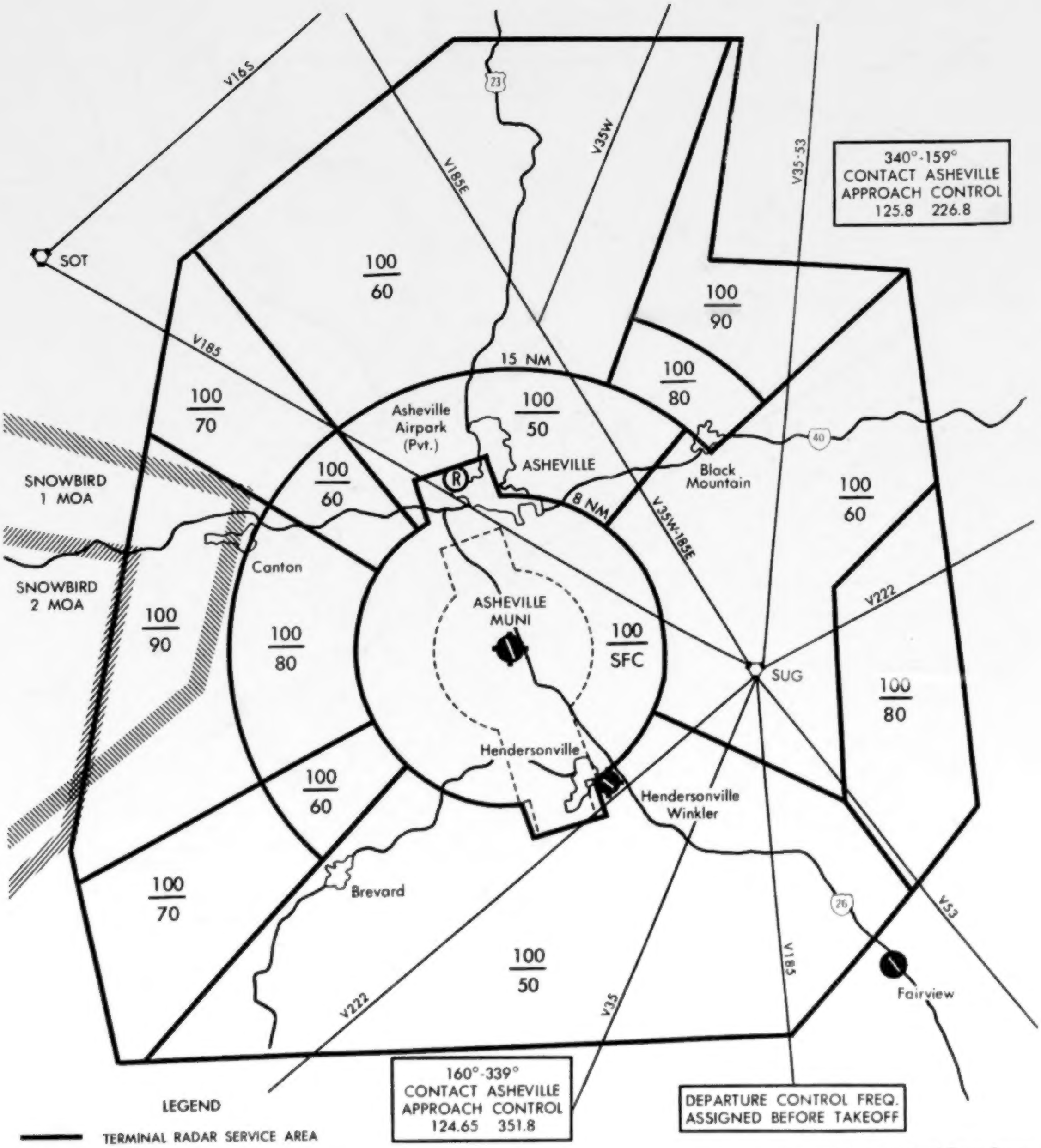
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ASHEVILLE, NORTH CAROLINA
FIELD ELEV. 2162


V165
V185E
23
V35W
V35-53
340°-159°
CONTACT ASHEVILLE
APPROACH CONTROL
125.8 226.8
SOT
100/60
100/90
V185
15 NM
100/80
100/70
Asheville Airpark (Pvt.)
100/50
ASHEVILLE
R
40
Black Mountain
100/60
SNOWBIRD 1 MOA
100/60
8 NM
V35W-185E
Canton
SNOWBIRD 2 MOA
ASHEVILLE MUNI
V222
100/90
100/80
100/SFC
SUG
100/80
Hendersonville
Hendersonville Winkler
100/60
100/70
Brevard
26
V53
100/50
V185
V222
V35
Fairview
160°-339°
CONTACT ASHEVILLE
APPROACH CONTROL
124.65 351.8
DEPARTURE CONTROL FREQ.
ASSIGNED BEFORE TAKEOFF

LEGEND

▬	TERMINAL RADAR SERVICE AREA
100	CEILING IN HUNDREDS OF FEET MSL
70	FLOOR IN HUNDREDS OF FEET MSL

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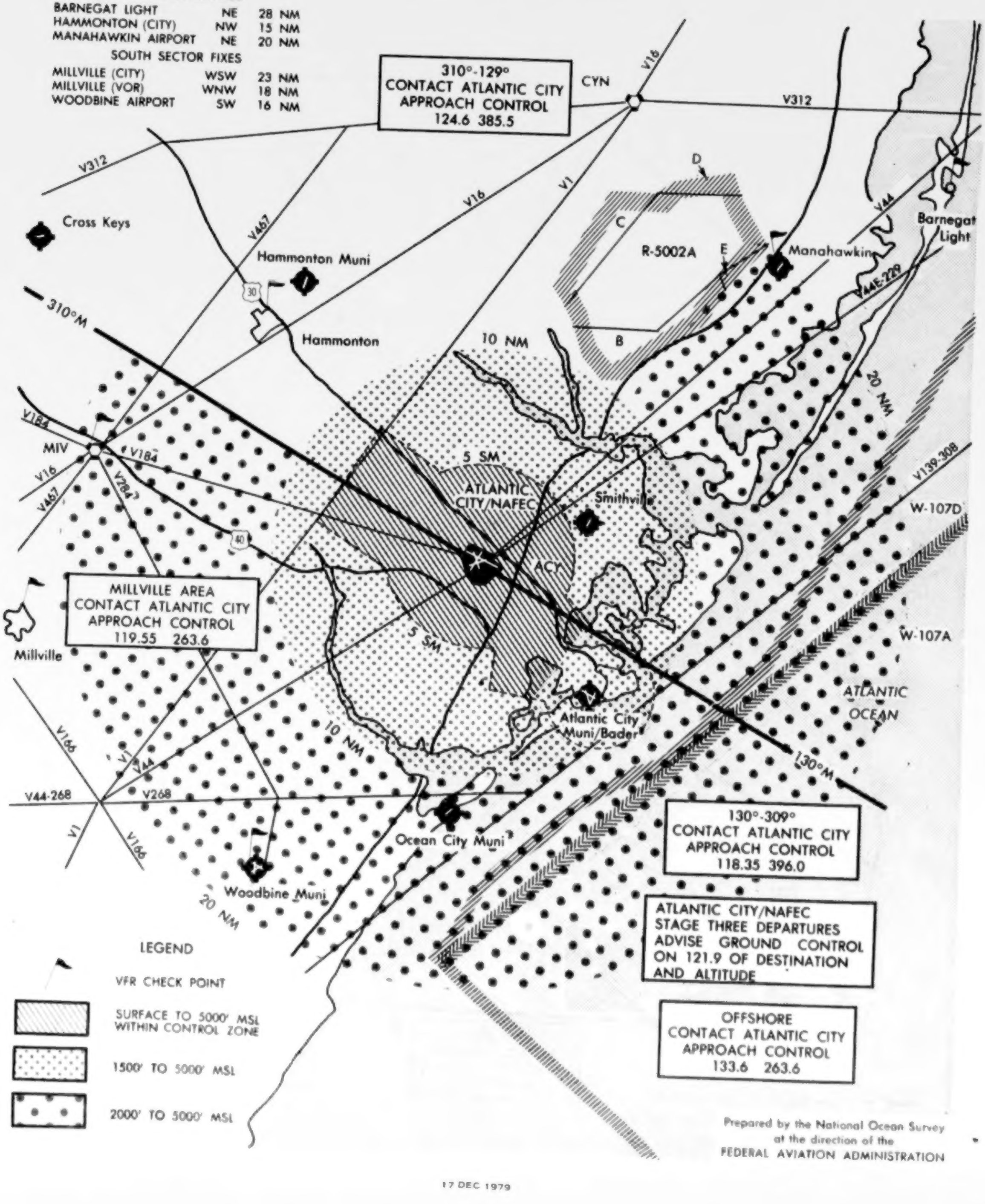
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ATLANTIC CITY, NEW JERSEY
ATLANTIC CITY NAFEC
FIELD ELEV 76' MSL

NORTH SECTOR FIXES		
BARNEGAT LIGHT	NE	28 NM
HAMMONTON (CITY)	NW	15 NM
MANAHAWKIN AIRPORT	NE	20 NM
SOUTH SECTOR FIXES		
MILLVILLE (CITY)	WSW	23 NM
MILLVILLE (VOR)	WNW	18 NM
WOODBINE AIRPORT	SW	16 NM


V312
CYN
V16
V1
D
C
R-5002A
E
B
Cross Keys
V467
Hammonton Muni
30
Hammonton
310°M
10 NM
Manahawkin
Barnegat Light
V44
V44E-229
20 NM
V139-308
W-107D
W-107A
ATLANTIC OCEAN
MIV
V184
V16
V467
V184
40
5 SM
ATLANTIC CITY/NAFEC
Smithville
ACY
5 SM
Millville
Atlantic City Muni/Bader
130°M
10 NM
V166
V1
V44
V44-268
V268
Ocean City Muni
Woodbine Muni
20 NM
LEGEND
VFR CHECK POINT
SURFACE TO 5000' MSL WITHIN CONTROL ZONE
1500' TO 5000' MSL
2000' TO 5000' MSL

310°-129°
CONTACT ATLANTIC CITY
APPROACH CONTROL
124.6 385.5

MILLVILLE AREA
CONTACT ATLANTIC CITY
APPROACH CONTROL
119.55 263.6

130°-309°
CONTACT ATLANTIC CITY
APPROACH CONTROL
118.35 396.0

ATLANTIC CITY/NAFEC
STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF DESTINATION
AND ALTITUDE

OFFSHORE
CONTACT ATLANTIC CITY
APPROACH CONTROL
133.6 263.6

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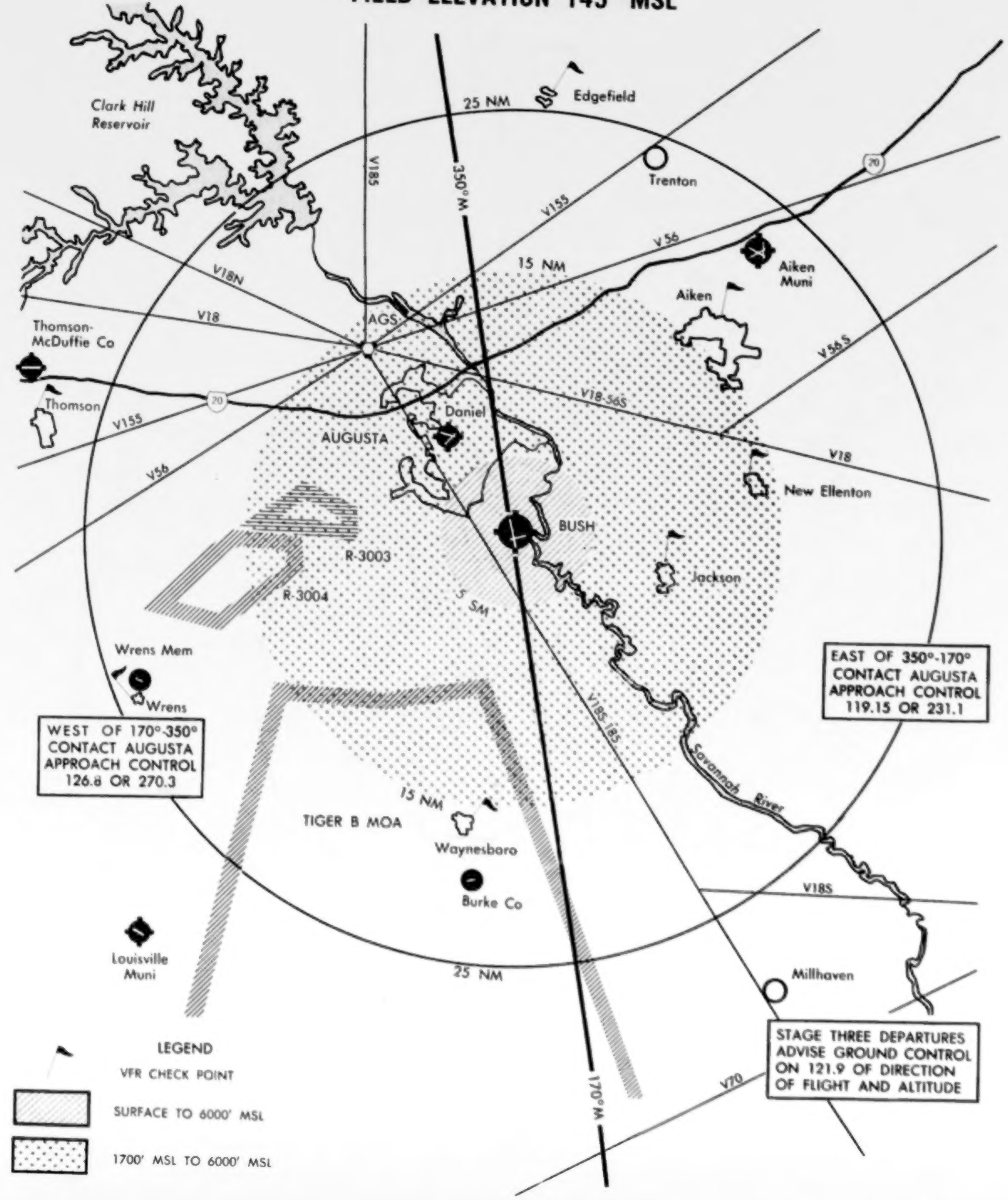
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AUGUSTA, GEORGIA
BUSH FIELD
FIELD ELEVATION 145′ MSL


Clark Hill Reservoir
Edgefield
25 NM
V185
350°M
Trenton
20
V155
V56
15 NM
V18N
Aiken Muni
Aiken
V18
AGS
Thomson-McDuffie Co
Thomson
20
V155
V56S
V18-56S
Daniel
AUGUSTA
V18
New Ellenton
V56
BUSH
R-3003
R-3004
5 SM
Jackson
Wrens Mem
Wrens
V185-185
Savannah River
15 NM
TIGER B MOA
Waynesboro
Burke Co
V185
Louisville Muni
25 NM
Millhaven
170°M
V70

EAST OF 350°-170°
CONTACT AUGUSTA
APPROACH CONTROL
119.15 OR 231.1

WEST OF 170°-350°
CONTACT AUGUSTA
APPROACH CONTROL
126.8 OR 270.3

STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF DIRECTION
OF FLIGHT AND ALTITUDE

LEGEND

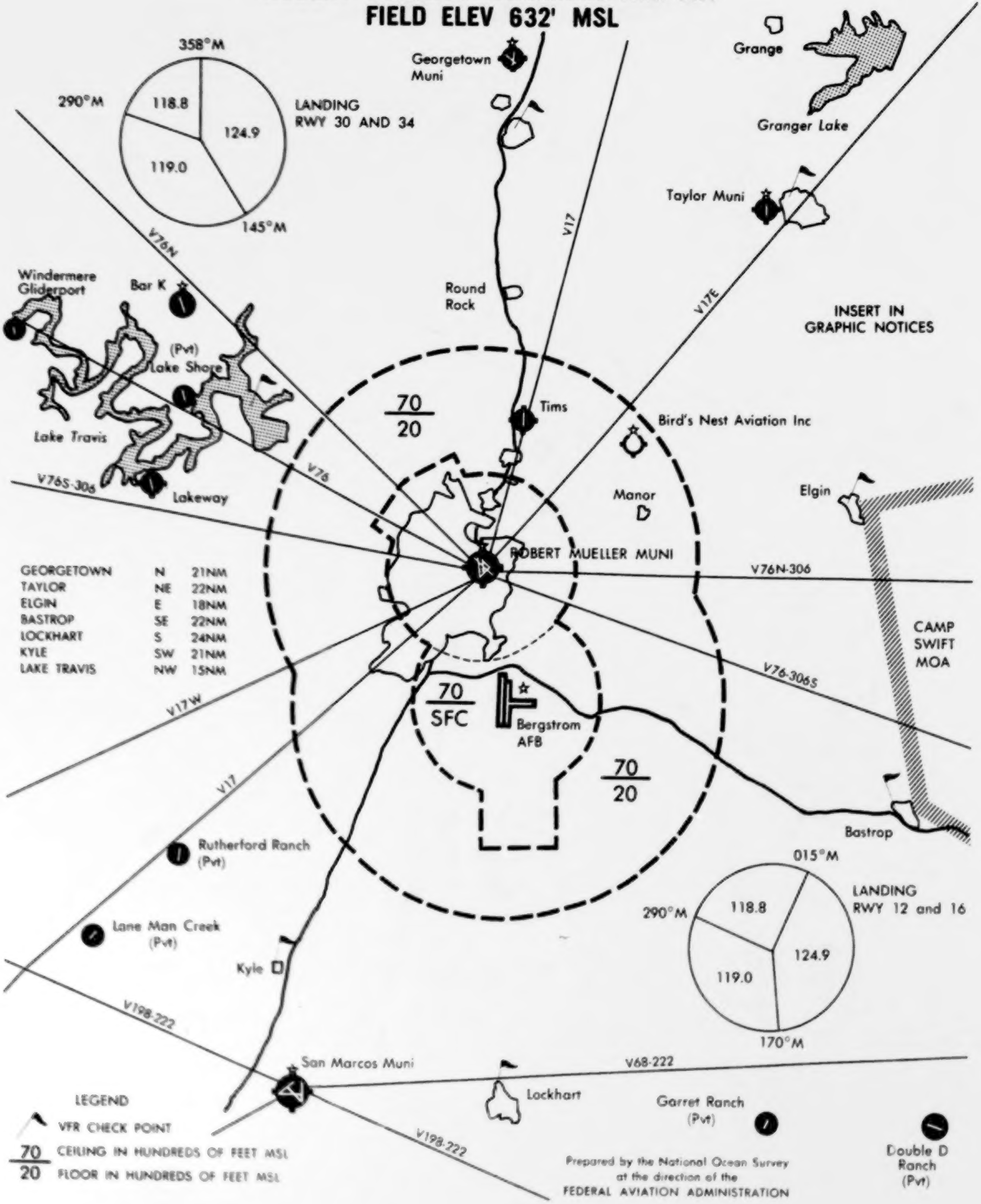
VFR CHECK POINT

▨ SURFACE TO 6000′ MSL

░ 1700′ MSL TO 6000′ MSL

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

AUSTIN, TEXAS
ROBERT MUELLER MUNICIPAL AIRPORT
FIELD ELEV 632' MSL


358°M
290°M
118.8
124.9
119.0
145°M
LANDING RWY 30 AND 34
Georgetown Muni
Grange
Granger Lake
Taylor Muni
V17
V17E
V76N
Windermere Gliderport
Bar K
(Pvt) Lake Shore
Lake Travis
Lakeway
V76S-306
V76
Round Rock
INSERT IN GRAPHIC NOTICES
70
20
Tims
Bird's Nest Aviation Inc
Manor
Elgin
ROBERT MUELLER MUNI
V76N-306
CAMP SWIFT MOA
V76-306S
V17W
V17
70
SFC
Bergstrom AFB
70
20
Bastrop
Rutherford Ranch (Pvt)
Lone Man Creek (Pvt)
Kyle
015°M
290°M
118.8
124.9
119.0
170°M
LANDING RWY 12 and 16
V198-222
San Marcos Muni
V68-222
Lockhart
Garret Ranch (Pvt)
Double D Ranch (Pvt)
V198-222

GEORGETOWN	N	21NM
TAYLOR	NE	22NM
ELGIN	E	18NM
BASTROP	SE	22NM
LOCKHART	S	24NM
KYLE	SW	21NM
LAKE TRAVIS	NW	15NM

LEGEND

VFR CHECK POINT

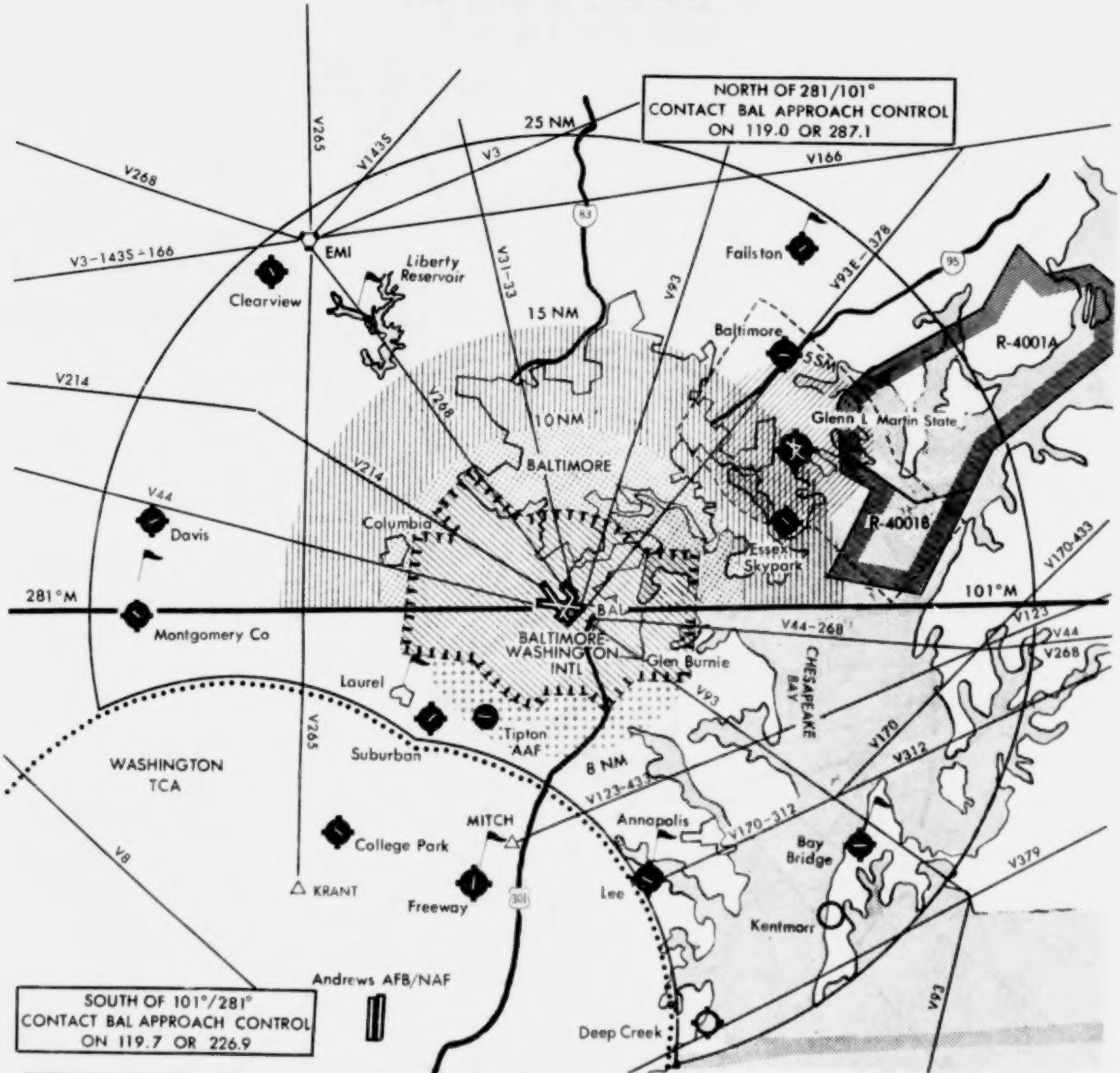
70 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

11 FEB 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BALTIMORE, MARYLAND, BALTIMORE-WASHINGTON INTL AIRPORT FIELD ELEV. 156′ MSL


25 NM
15 NM
10 NM
8 NM
5 SM
V265
V143S
V3
V268
V3-143S-166
V166
V31-33
V93
V93E-378
V214
V44
V44-268
V123
V123-433
V170-433
V170
V312
V170-312
V379
V8
83
95
301
EMI
Clearview
Liberty Reservoir
Fallston
Baltimore
Glenn L Martin State
R-4001A
R-4001B
BALTIMORE
Columbia
Davis
Essex Skypark
281°M
101°M
Montgomery Co
BAL
BALTIMORE-WASHINGTON INTL
Glen Burnie
CHESAPEAKE BAY
Laurel
Tipton AAF
Suburban
WASHINGTON TCA
MITCH
College Park
KRANT
Freeway
Annapolis
Lee
Bay Bridge
Kentmorr
Andrews AFB/NAF
Deep Creek

NORTH OF 281/101°
CONTACT BAL APPROACH CONTROL
ON 119.0 OR 287.1

SOUTH OF 101°/281°
CONTACT BAL APPROACH CONTROL
ON 119.7 OR 226.9

VFR FLIGHTS: DEPARTING AIRCRAFT PRIOR TO TAXIING ARE REQUESTED TO ADVISE BALTIMORE-WASHINGTON CLEARANCE DELIVERY OF THE INITIAL ROUTE OF FLIGHT AND ALTITUDE ON 126.75

ENROUTE AIRCRAFT REMAIN CLEAR OF AIRPORT TRAFFIC AREA AT GLENN L. MARTIN STATE AIRPORT AND THE TRAFFIC PATTERN BELOW 2000 FT. AT TIPTON AAF.

LEGEND

⚑	VFR CHECK POINT
▨	AIRPORT TRAFFIC AREA
▨	SFC TO 5000′ SOUTH OF RWY 10/28 LOCALIZER SFC TO 7000′ NORTH OF RWY 10/28 LOCALIZER
▨	2000′ TO 5000′
▨	2000′ TO 7000′
▥	2500′ TO 7000′
▨	3000′ TO 7,000′

FALLSTON AIRPORT	NE 23 NM
BAY BRIDGE AIRPORT	SE 21 NM
LEE AIRPORT	SE 15 NM
FREEWAY AIRPORT	S 15 NM
LAUREL, MARYLAND	SW 11 NM
MONTGOMERY CO AIRPORT	W 23 NM
LIBERTY RESERVOIR	NW 17 NM

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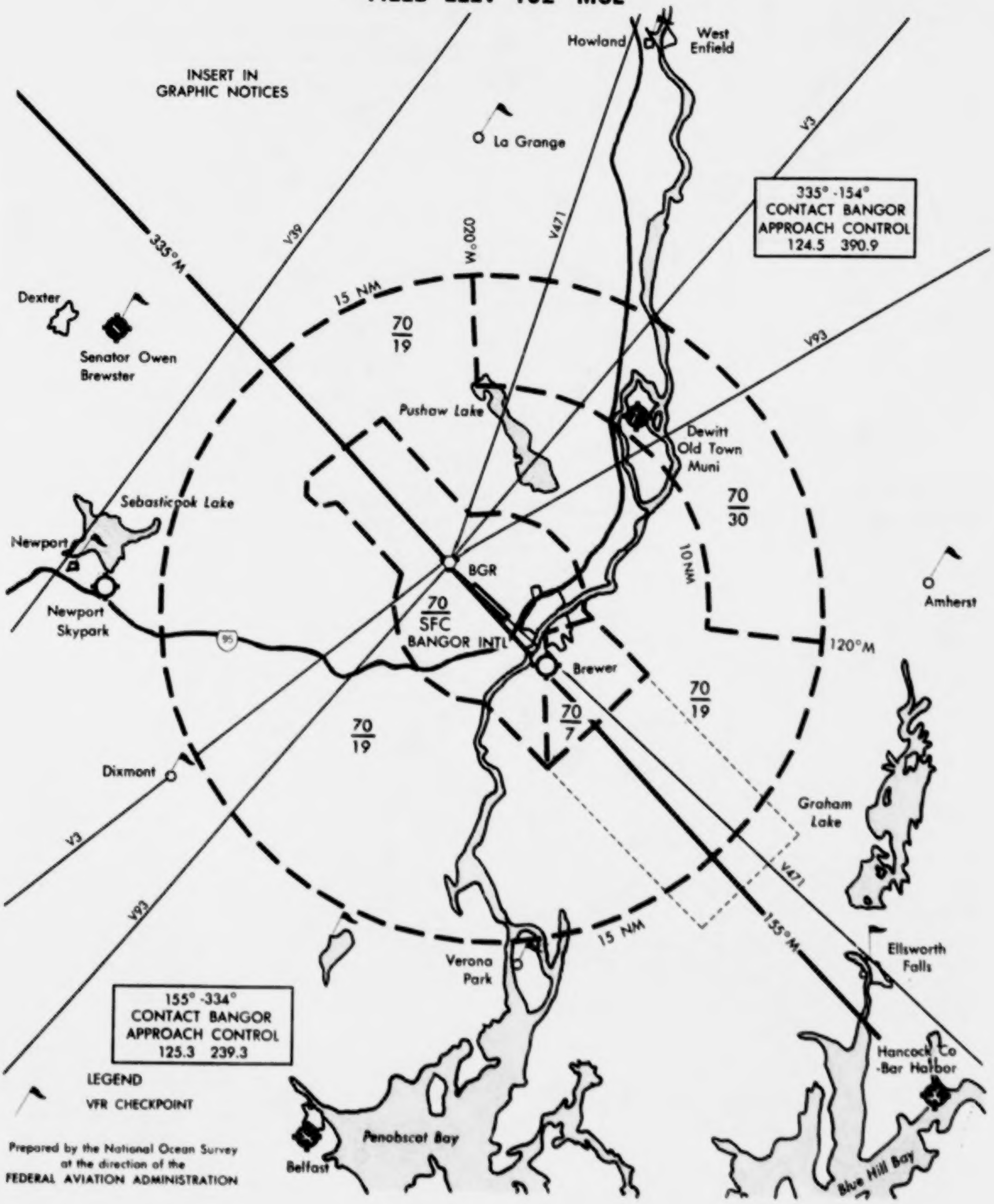
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BANGOR, MAINE
BANGOR INTL AIRPORT
FIELD ELEV 192′ MSL

INSERT IN
GRAPHIC NOTICES


Howland
West Enfield
La Grange
V3
V39
V471
020°M
335°M
335° -154°
CONTACT BANGOR
APPROACH CONTROL
124.5 390.9
Dexter
15 NM
70/19
Senator Owen Brewster
V93
Pushaw Lake
Dewitt
Old Town
Muni
70/30
Sebasticook Lake
Newport
10 NM
BGR
Amherst
Newport Skypark
95
70/SFC
BANGOR INTL
120°M
Brewer
70/19
70/7
70/19
Dixmont
Graham Lake
V3
V471
V93
155°M
15 NM
Ellsworth Falls
Verona Park
155° -334°
CONTACT BANGOR
APPROACH CONTROL
125.3 239.3
Hancock Co
-Bar Harbor
LEGEND
VFR CHECKPOINT
Penobscot Bay
Belfast
Blue Hill Bay

Prepared by the National Ocean Survey
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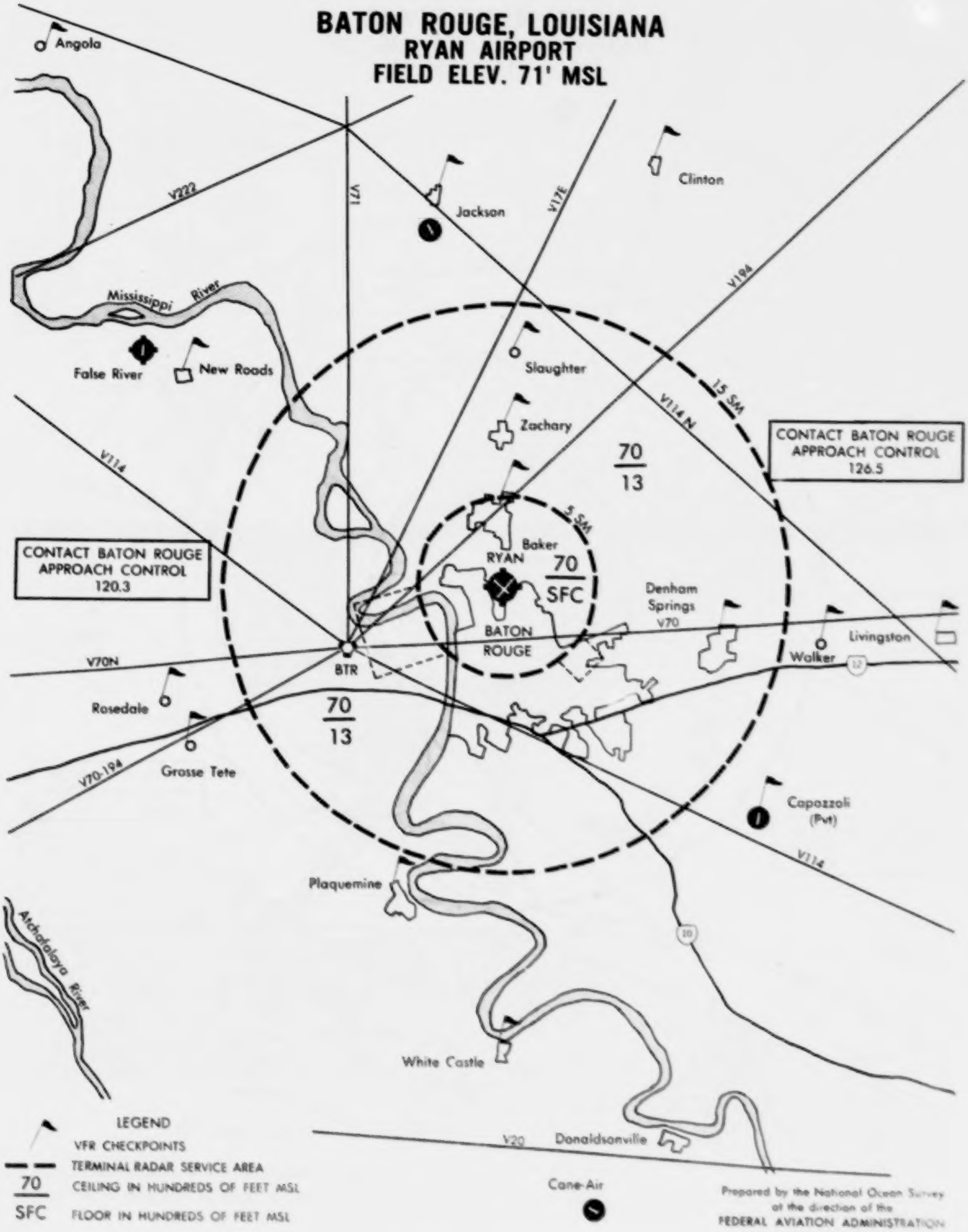
FEDERAL AVIATION ADMINISTRATION

28 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BATON ROUGE, LOUISIANA
RYAN AIRPORT
FIELD ELEV. 71' MSL


Angola
Clinton
Jackson
V222
V71
V17E
V194
Mississippi River
False River
New Roads
Slaughter
Zachary
15 SM
V114 N
CONTACT BATON ROUGE APPROACH CONTROL 126.5
70
13
V114
5 SM
Baker
RYAN
70
SFC
CONTACT BATON ROUGE APPROACH CONTROL 120.3
Denham Springs
V70
Livingston
Walker
12
BATON ROUGE
V70N
BTR
Rosedale
70
13
Grosse Tete
V70-194
Capozzoli (Pvt)
V114
Plaquemine
10
Atchafalaya River
White Castle
Donaldsonville
V20
Cane-Air
LEGEND
VFR CHECKPOINTS
TERMINAL RADAR SERVICE AREA
70 CEILING IN HUNDREDS OF FEET MSL
SFC FLOOR IN HUNDREDS OF FEET MSL

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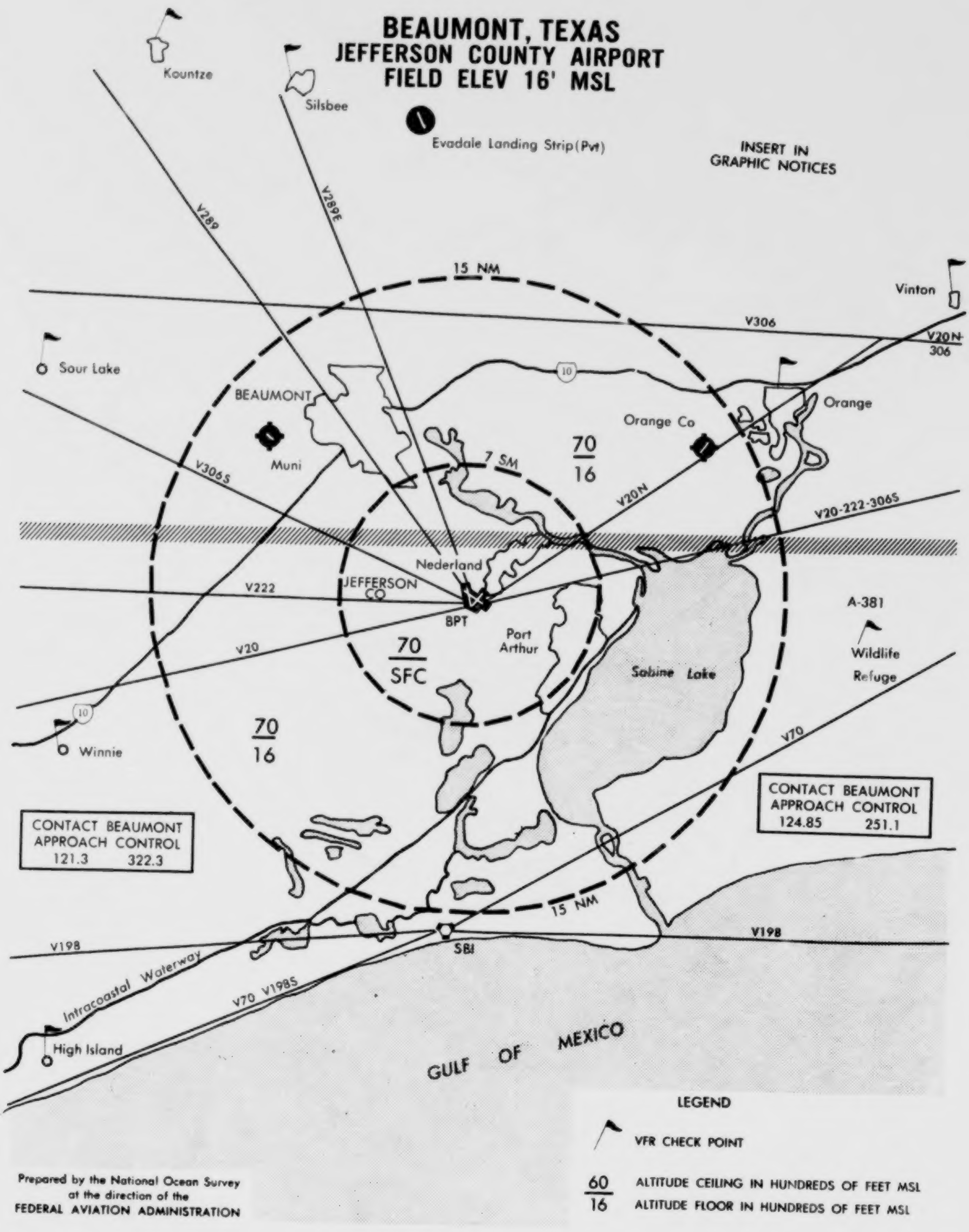
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BEAUMONT, TEXAS
JEFFERSON COUNTY AIRPORT
FIELD ELEV 16' MSL

INSERT IN
GRAPHIC NOTICES


Kountze
Silsbee
Evadale Landing Strip (Pvt)
V289
V289E
15 NM
Vinton
V306
V20N-306
Sour Lake
10
BEAUMONT
Orange
Orange Co
70/16
Muni
7 SM
V306S
V20N
V20-222-306S
Nederland
JEFFERSON CO
V222
BPT
A-381
Port Arthur
V20
70/SFC
Sabine Lake
Wildlife Refuge
V70
Winnie
70/16
15 NM
V198
SBI
V198
Intracoastal Waterway
V70 V198S
High Island
GULF OF MEXICO

CONTACT BEAUMONT
APPROACH CONTROL
121.3 322.3

CONTACT BEAUMONT
APPROACH CONTROL
124.85 251.1

LEGEND

VFR CHECK POINT

60	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
16	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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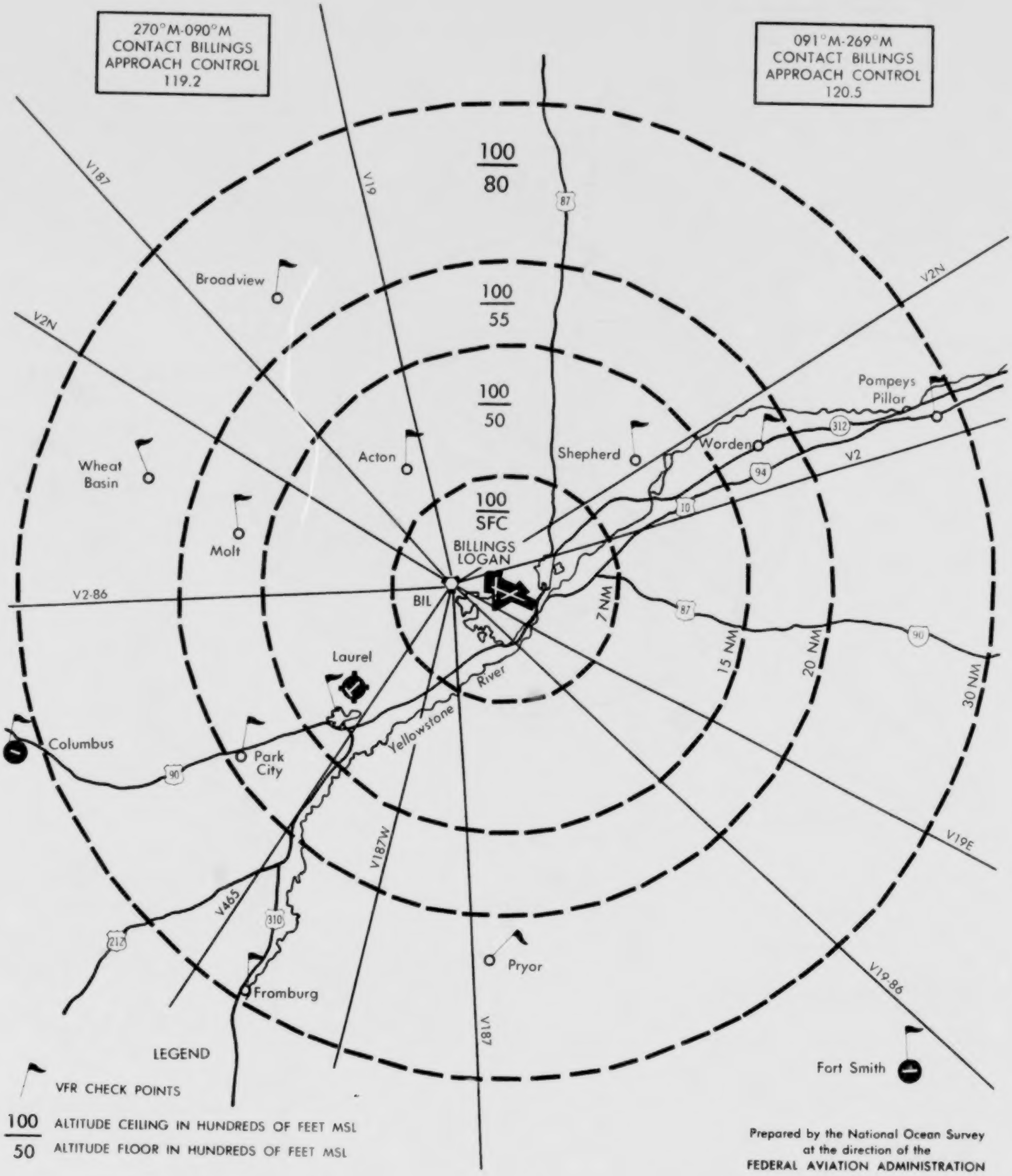
28 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BILLINGS, MONTANA
BILLINGS LOGAN INTL AIRPORT
FIELD ELEV 3605' MSL


270°M-090°M
CONTACT BILLINGS
APPROACH CONTROL
119.2
091°M-269°M
CONTACT BILLINGS
APPROACH CONTROL
120.5
100/80
100/55
100/50
100/SFC
BILLINGS LOGAN
BIL
7 NM
15 NM
20 NM
30 NM
V187
V19
V2N
V2
V2-86
V19E
V19-86
V187W
V465
87
94
10
90
312
310
212
Broadview
Wheat Basin
Molt
Acton
Shepherd
Worden
Pompeys Pillar
Laurel
Columbus
Park City
Yellowstone River
Fromburg
Pryor
Fort Smith
LEGEND
VFR CHECK POINTS
100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
50 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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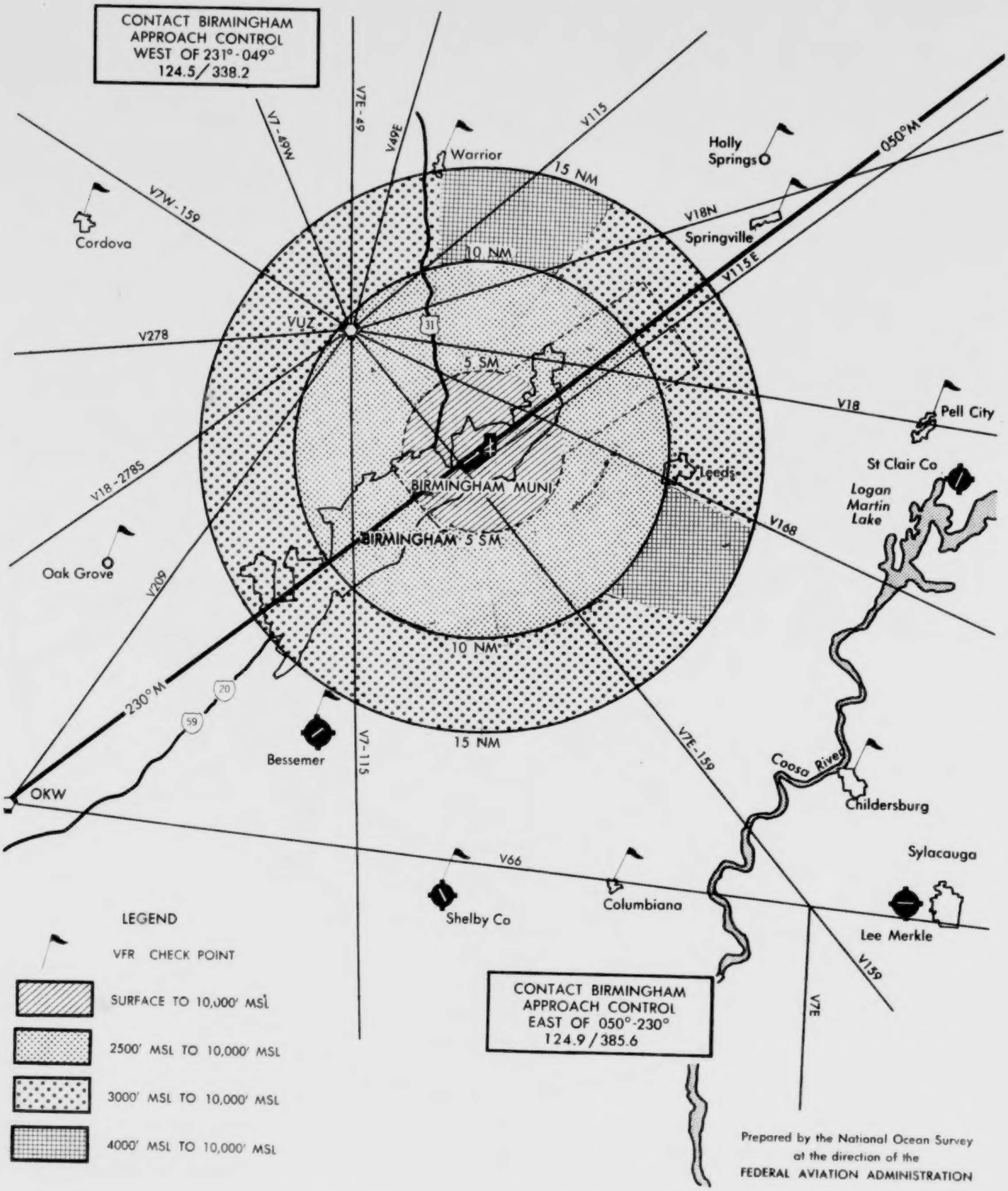
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BIRMINGHAM, ALABAMA, BIRMINGHAM MUNICPAL AIRPORT
FIELD ELEV. 643′ MSL


V7E-49
V49E
V7-49W
V115
Warrior
15 NM
Holly Springs
050°M
V7W-159
Cordova
V18N
Springville
10 NM
V115E
VUZ
31
V278
5 SM
V18
Pell City
V18-278S
Leeds
St Clair Co
BIRMINGHAM MUNI
Logan Martin Lake
V168
BIRMINGHAM 5 SM
Oak Grove
V209
10 NM
230°M
20
59
Bessemer
V7-115
15 NM
V7E-159
Coosa River
Childersburg
OKW
Sylacauga
V66
Columbiana
Shelby Co
Lee Merkle
V159
V7E

CONTACT BIRMINGHAM
APPROACH CONTROL
WEST OF 231°-049°
124.5/338.2

CONTACT BIRMINGHAM
APPROACH CONTROL
EAST OF 050°-230°
124.9/385.6

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 10,000′ MSL
- ▨ 2500′ MSL TO 10,000′ MSL
- ▨ 3000′ MSL TO 10,000′ MSL
- ▨ 4000′ MSL TO 10,000′ MSL

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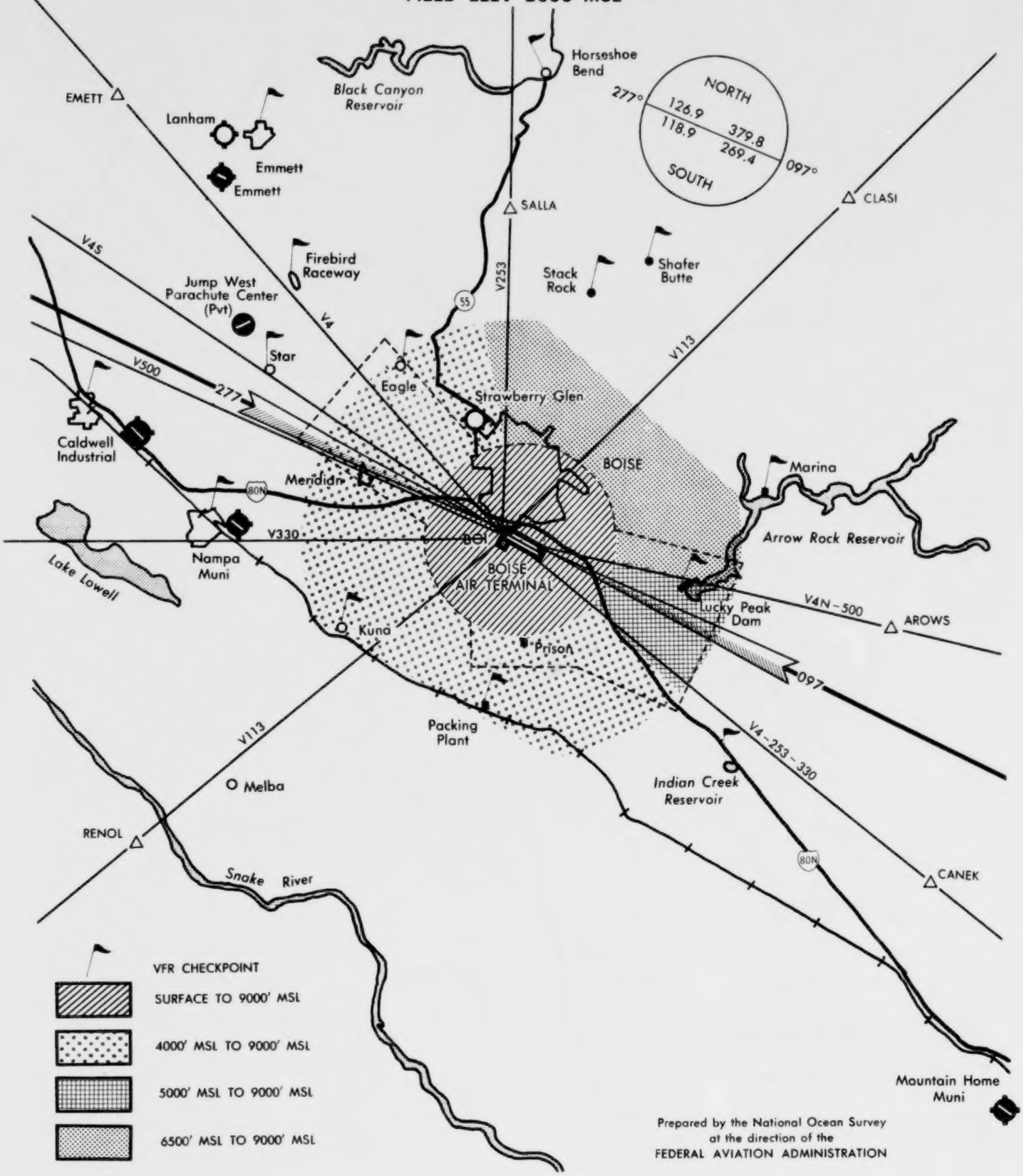
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BOISE, IDAHO
BOISE AIR TERMINAL
FIELD ELEV 2858′ MSL


NORTH
277°
126.9
118.9
379.8
269.4
097°
SOUTH
Horseshoe Bend
Black Canyon Reservoir
EMETT
Lanham
Emmett
Emmett
SALLA
CLASI
V45
V4
V253
55
Firebird Raceway
Jump West Parachute Center (Pvt)
Stack Rock
Shafer Butte
Star
V500
277
Eagle
Strawberry Glen
V113
Caldwell Industrial
Meridian
80N
BOISE
Marina
Arrow Rock Reservoir
V330
BOI
Nampa Muni
Lake Lowell
BOISE AIR TERMINAL
Lucky Peak Dam
V4N-500
AROWS
Kuna
Prison
097
Packing Plant
V4-253-330
Indian Creek Reservoir
V113
Melba
RENOL
80N
CANEK
Snake River
Mountain Home Muni
VFR CHECKPOINT
SURFACE TO 9000′ MSL
4000′ MSL TO 9000′ MSL
5000′ MSL TO 9000′ MSL
6500′ MSL TO 9000′ MSL

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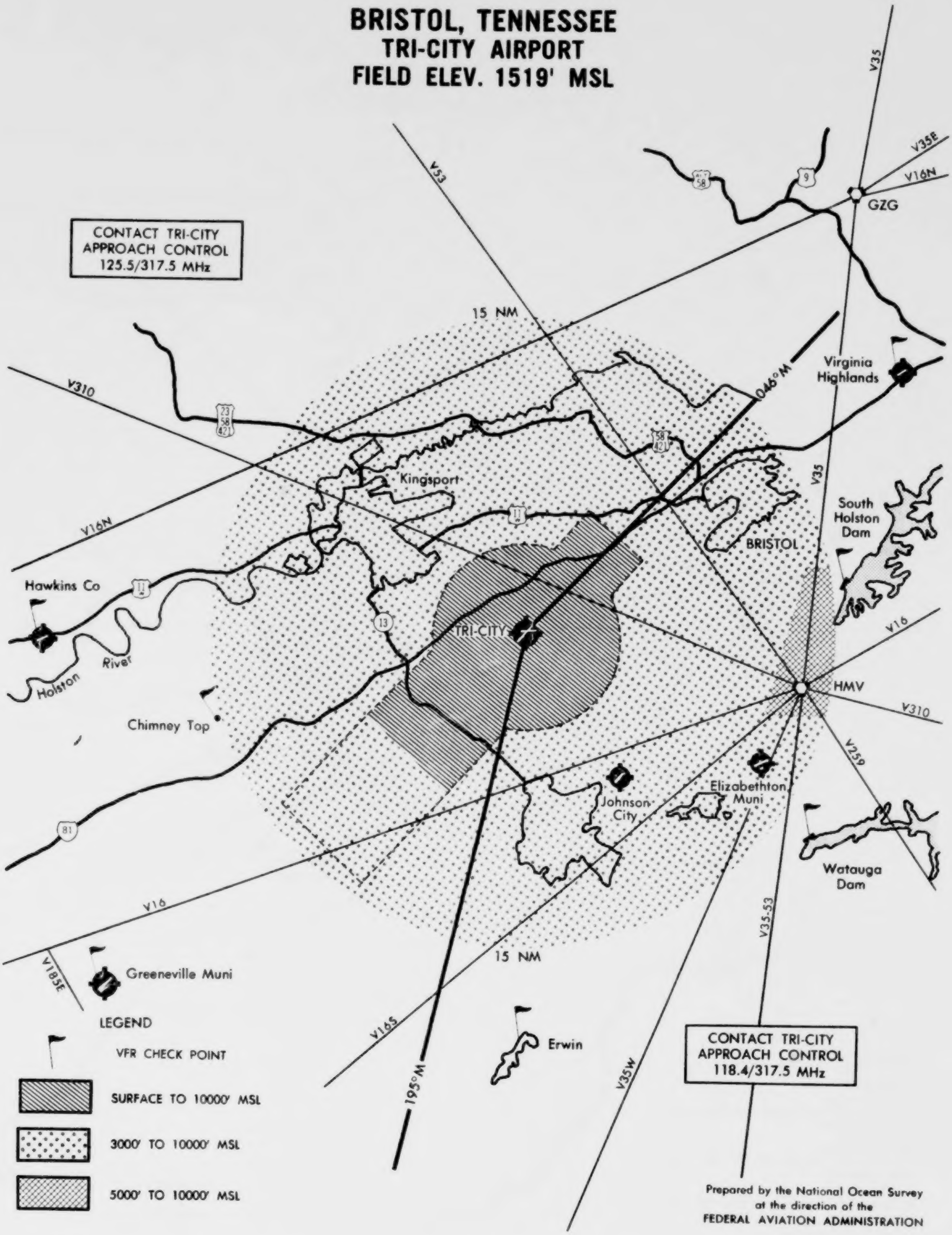
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

315-821 0 - 80 - 9

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BRISTOL, TENNESSEE
TRI-CITY AIRPORT
FIELD ELEV. 1519' MSL


V35
V35E
V16N
GZG
58
9
V53
15 NM
046°M
Virginia Highlands
V310
23
58
421
58
421
Kingsport
V35
South Holston Dam
V16N
11
BRISTOL
Hawkins Co
11
13
TRI-CITY
V16
HMV
V310
Holston River
Chimney Top
V259
Johnson City
Elizabethton Muni
81
Watauga Dam
V16
V35-53
15 NM
V185E
Greeneville Muni
V165
Erwin
V35W
195°M
LEGEND
VFR CHECK POINT
▨ SURFACE TO 10000' MSL
⁘ 3000' TO 10000' MSL
▩ 5000' TO 10000' MSL

CONTACT TRI-CITY
APPROACH CONTROL
125.5/317.5 MHz

CONTACT TRI-CITY
APPROACH CONTROL
118.4/317.5 MHz

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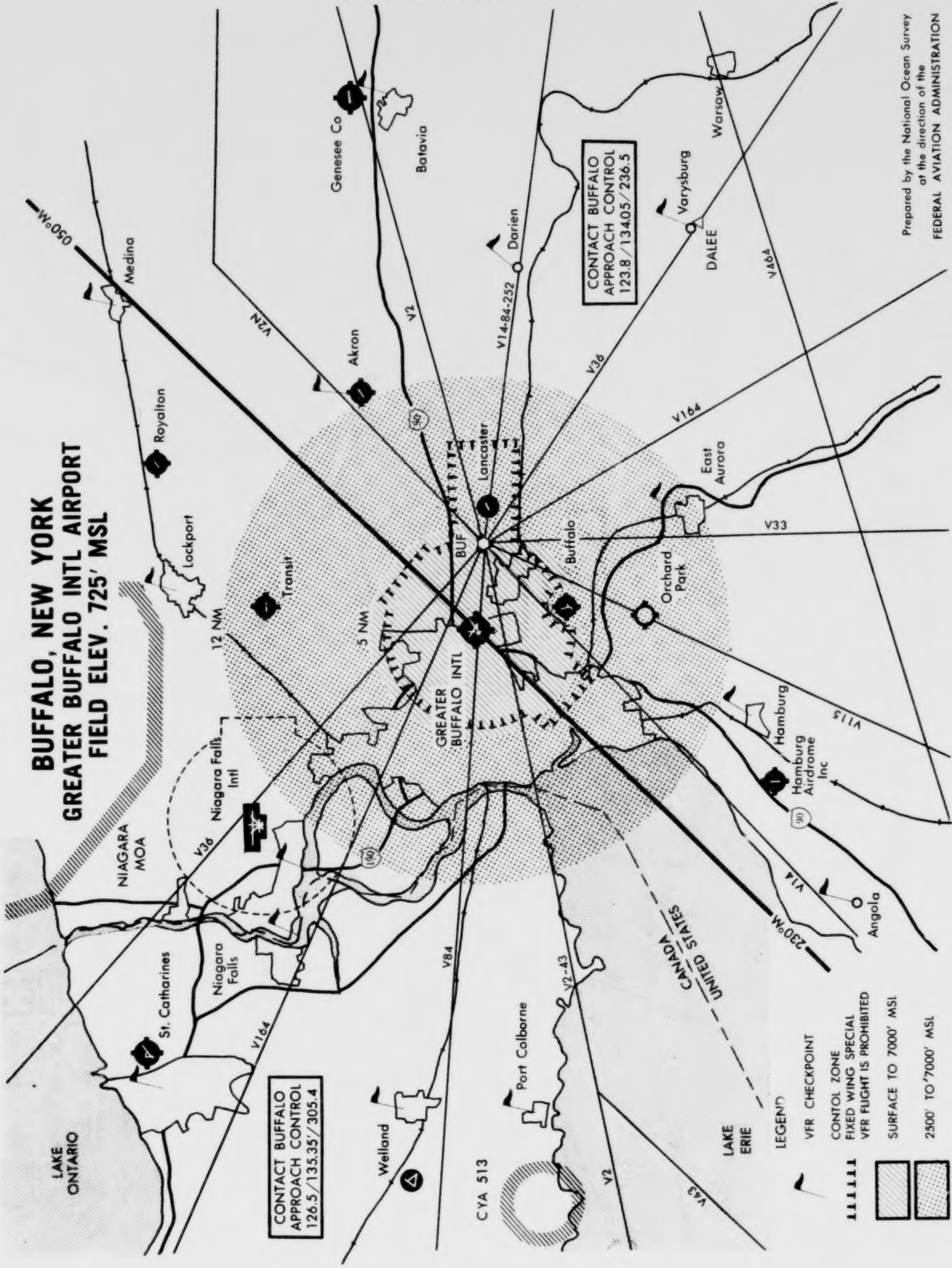
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)


BUFFALO, NEW YORK
GREATER BUFFALO INTL AIRPORT
FIELD ELEV. 725' MSL

NIAGARA MOA
Niagara Falls Intl
Lockport
Royalton
Medina
Akron
Transit
Genesee Co
Batavia
Darien
Varysburg
DALEE
Warsaw
Lancaster
BUF
Buffalo
East Aurora
Orchard Park
Hamburg
Hamburg Airdrome Inc
Angola
GREATER BUFFALO INTL
12 NM
5 NM
050°M
230°M
V2N
V2
V14-84-252
V36
V164
V33
V115
V14
V464
V84
V2-43
V43
90
190
CONTACT BUFFALO APPROACH CONTROL 123.8/134.05/236.5
CONTACT BUFFALO APPROACH CONTROL 126.5/135.35/305.4
LAKE ONTARIO
St. Catharines
Niagara Falls
Welland
Port Colborne
CYA 513
CANADA
UNITED STATES
LAKE ERIE

LEGEND
- VFR CHECKPOINT
- CONTOL ZONE FIXED WING SPECIAL VFR FLIGHT IS PROHIBITED
- SURFACE TO 7000' MSL
- 2500' TO 7000' MSL

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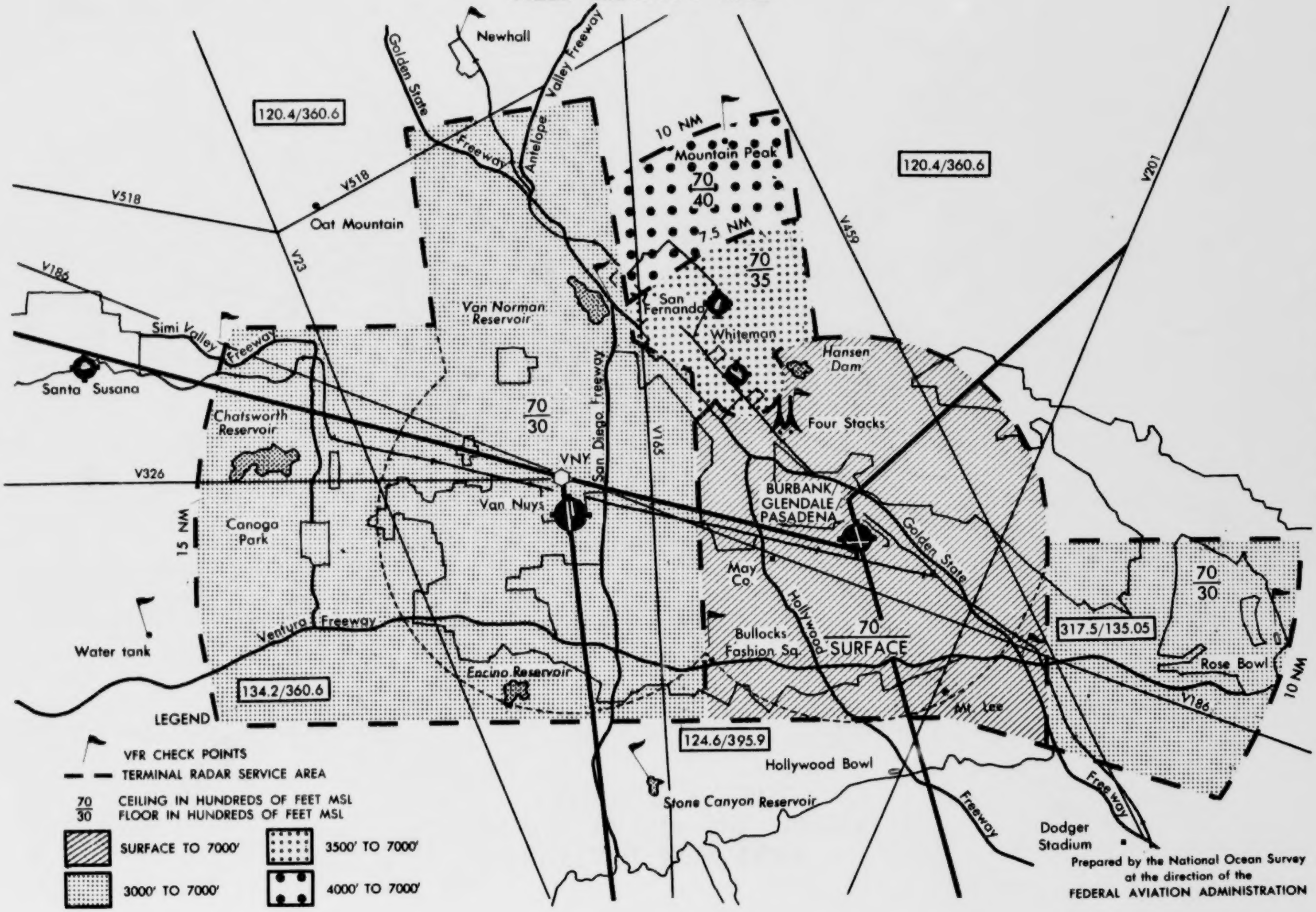
29 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BURBANK, CALIF.
BURBANK/GLENDALE/PASADENA AIRPORT
FIELD ELEV. 774′ MSL


Newhall
Golden State
Valley Freeway
Antelope
Freeway
120.4/360.6
V518
Oat Mountain
V23
10 NM
Mountain Peak
70/40
7.5 NM
70/35
120.4/360.6
V459
V201
V186
Simi Valley
Freeway
Van Norman Reservoir
San Fernando
Whiteman
Hansen Dam
Four Stacks
Santa Susana
Chatsworth Reservoir
70/30
San Diego Freeway
V165
V326
VNY
Van Nuys
BURBANK/GLENDALE/PASADENA
Canoga Park
15 NM
May Co.
Golden State
70/30
Hollywood
Bullocks Fashion Sq.
70/SURFACE
317.5/135.05
Rose Bowl
10 NM
Water tank
Ventura Freeway
Encino Reservoir
134.2/360.6
Mt. Lee
V186
124.6/395.9
Hollywood Bowl
Stone Canyon Reservoir
Freeway
Freeway
Dodger Stadium
LEGEND
VFR CHECK POINTS
TERMINAL RADAR SERVICE AREA
70/30 CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL
SURFACE TO 7000′
3500′ TO 7000′
3000′ TO 7000′
4000′ TO 7000′

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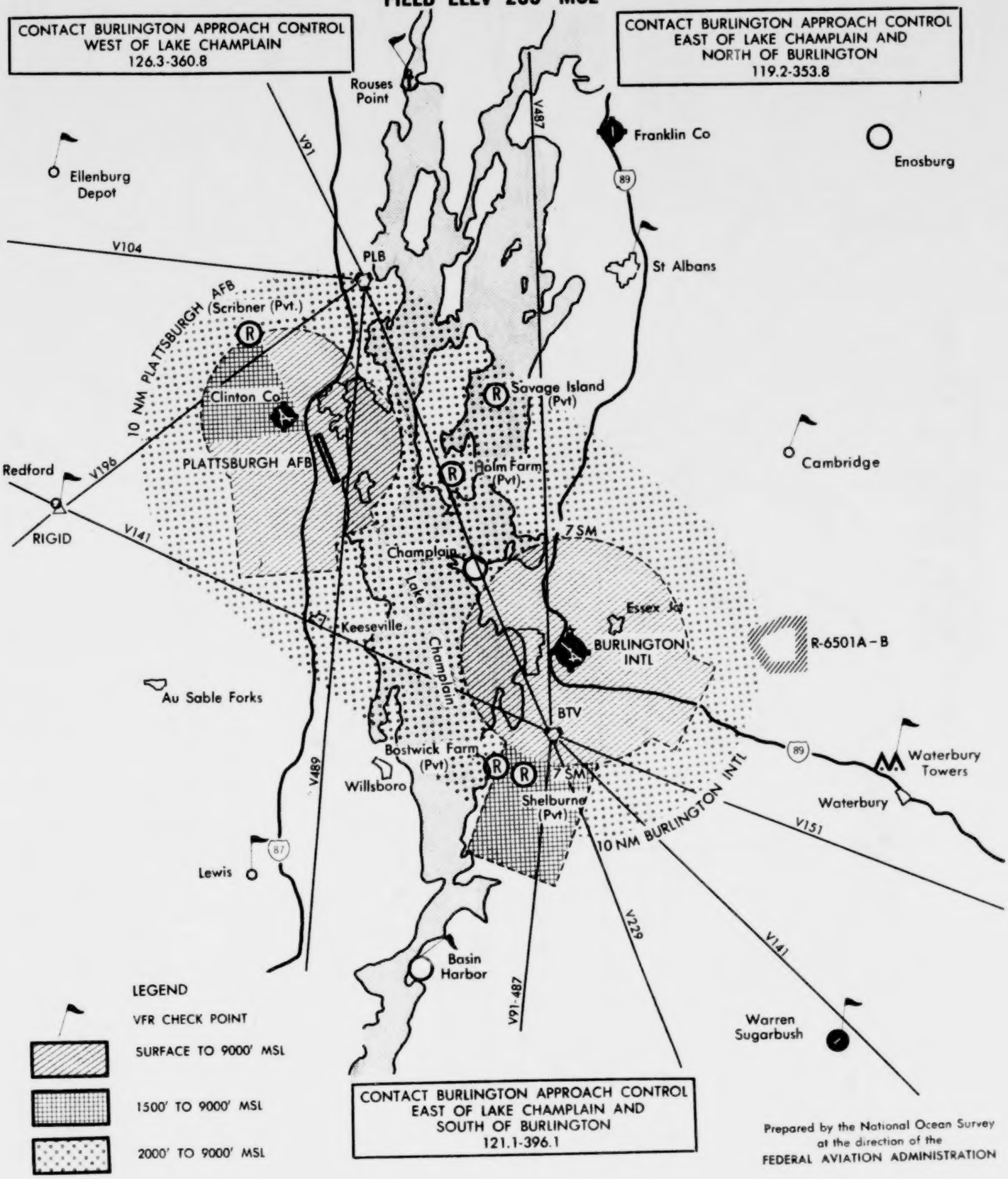
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BURLINGTON, VERMONT
BURLINGTON INTL
FIELD ELEV 335' MSL
PLATTSBURGH AFB
FIELD ELEV 235' MSL


Rouses Point
V91
V487
Franklin Co
Enosburg
89
Ellenburg Depot
V104
PLB
St Albans
10 NM PLATTSBURGH AFB
Scribner (Pvt.)
R
Savage Island (Pvt)
Clinton Co
Cambridge
Redford
V196
PLATTSBURGH AFB
Holm Farm (Pvt)
RIGID
V141
7 SM
Champlain
Lake Champlain
Essex Jct
Keeseville
BURLINGTON INTL
R-6501A – B
Au Sable Forks
BTV
89
Bostwick Farm (Pvt)
Waterbury Towers
7 SM
Willsboro
V489
Shelburne (Pvt)
Waterbury
10 NM BURLINGTON INTL
V151
87
Lewis
V229
V141
Basin Harbor
V91-487
Warren Sugarbush

CONTACT BURLINGTON APPROACH CONTROL
WEST OF LAKE CHAMPLAIN
126.3-360.8

CONTACT BURLINGTON APPROACH CONTROL
EAST OF LAKE CHAMPLAIN AND
NORTH OF BURLINGTON
119.2-353.8

CONTACT BURLINGTON APPROACH CONTROL
EAST OF LAKE CHAMPLAIN AND
SOUTH OF BURLINGTON
121.1-396.1

LEGEND

VFR CHECK POINT

▨ SURFACE TO 9000' MSL

▦ 1500' TO 9000' MSL

⠿ 2000' TO 9000' MSL

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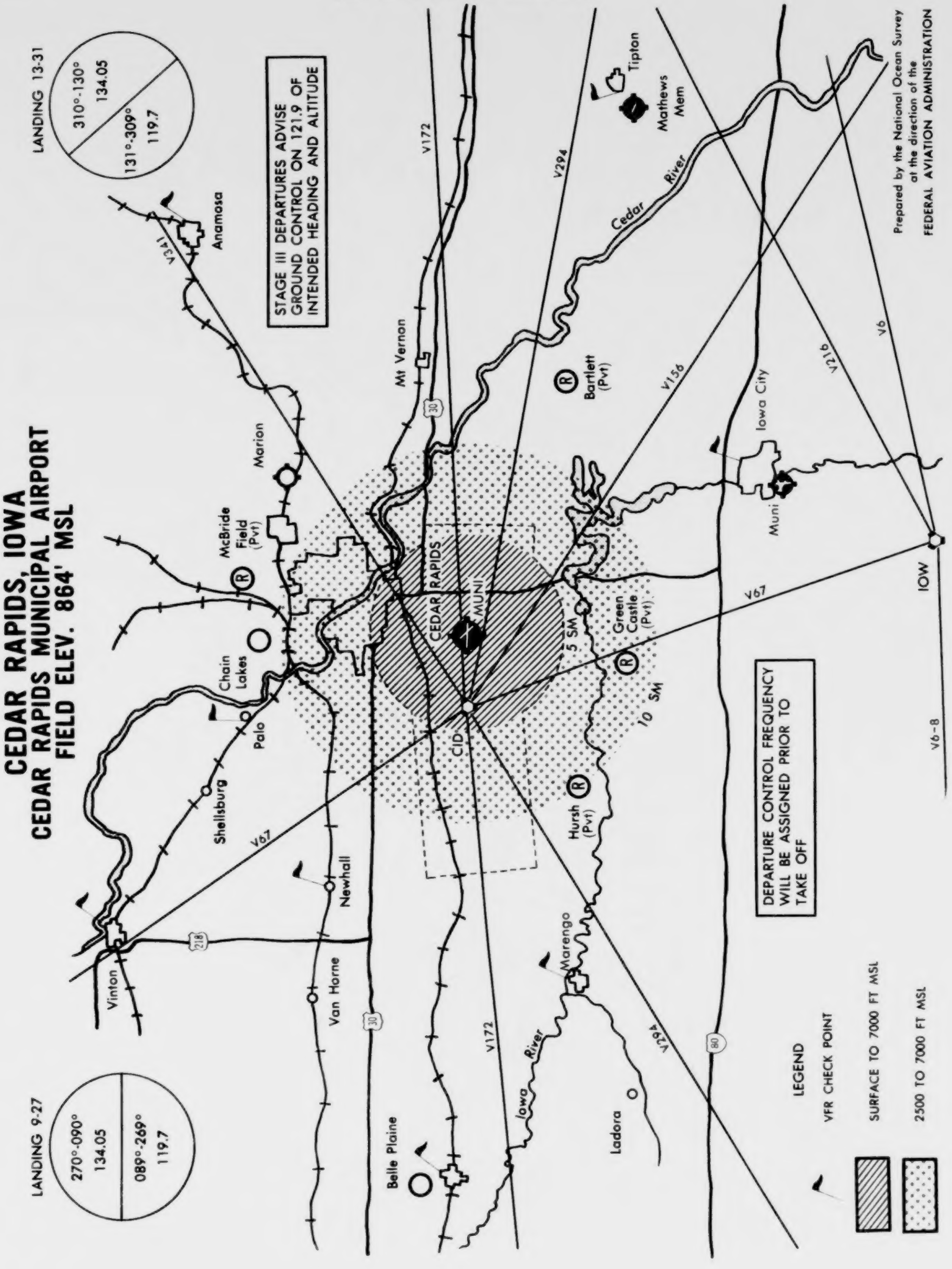
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

CEDAR RAPIDS, IOWA
CEDAR RAPIDS MUNICIPAL AIRPORT
FIELD ELEV. 864' MSL


LANDING 13-31
310°-130°
134.05
131°-309°
119.7
LANDING 9-27
270°-090°
134.05
089°-269°
119.7
Anamosa
V341
Marion
McBride Field (Pvt)
Chain Lakes
Palo
Shellsburg
V67
Newhall
Vinton
218
Van Horne
30
Belle Plaine
Mt Vernon
30
V172
V294
Tipton
Mathews Mem
Cedar River
Bartlett (Pvt)
V156
Iowa City
V216
V6
Muni
IOW
V67
V6-8
CEDAR RAPIDS
MUNI
CID
5 SM
10 SM
Green Castle (Pvt)
Hursh (Pvt)
Marengo
V172
Iowa River
Ladora
V294
80

STAGE III DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDED HEADING AND ALTITUDE

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF

LEGEND

VFR CHECK POINT

▨ SURFACE TO 7000 FT MSL

⬚ 2500 TO 7000 FT MSL

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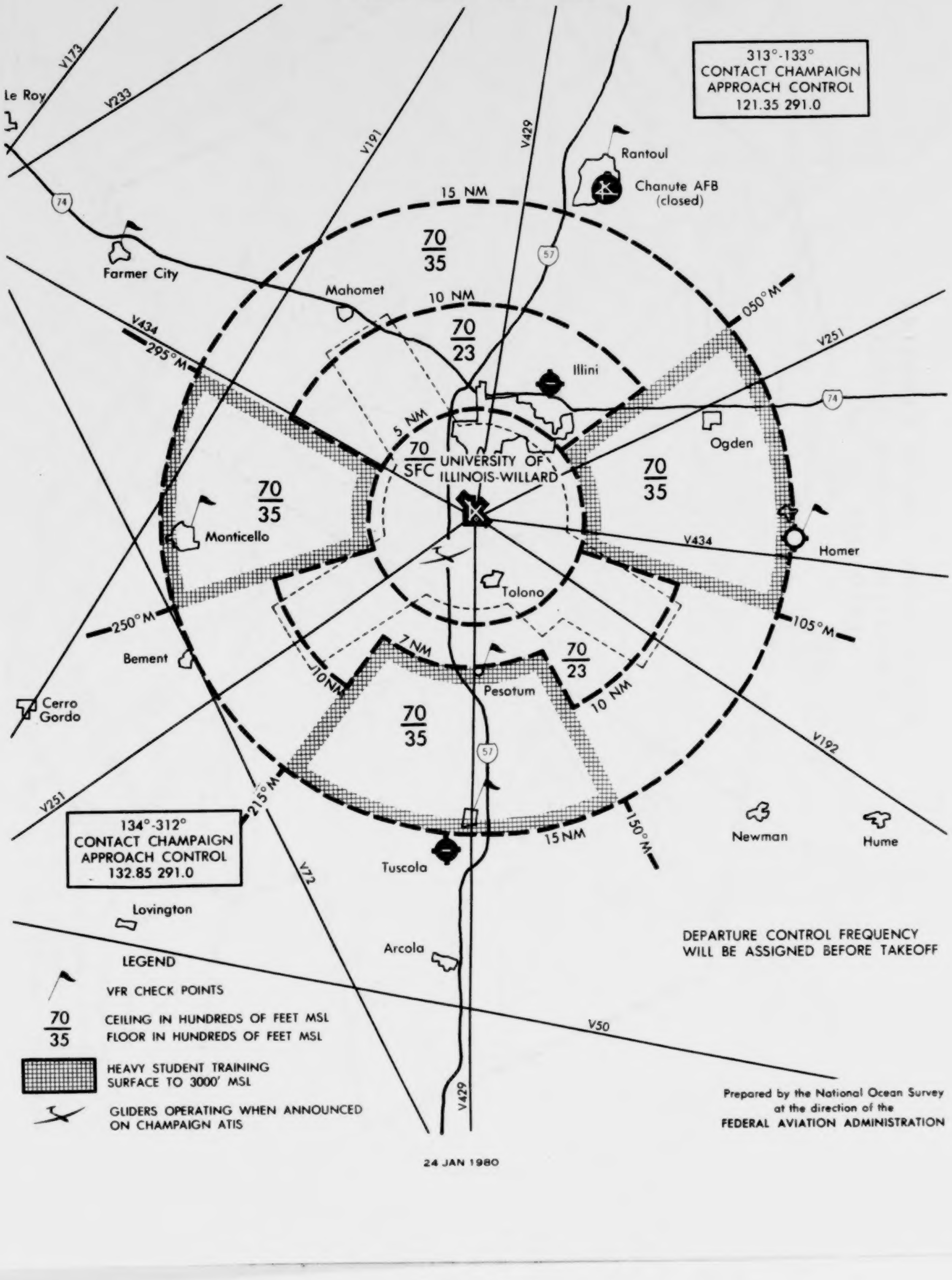
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHAMPAIGN, ILLINOIS
UNIV OF ILLINOIS WILLARD AIRPORT
FIELD ELEV 754' MSL


V173
Le Roy
V233
V191
V429
Rantoul
Chanute AFB (closed)
74
15 NM
Farmer City
57
Mahomet
10 NM
050°M
V251
V434
295°M
Illini
74
Ogden
5 NM
70/SFC
UNIVERSITY OF ILLINOIS-WILLARD
70/35
70/23
Monticello
V434
Homer
Tolono
250°M
105°M
Bement
7 NM
10 NM
Pesotum
Cerro Gordo
10 NM
V192
57
V251
215°M
150°M
15 NM
Newman
Hume
Tuscola
V72
Lovington
Arcola
V50
V429

313°-133°
CONTACT CHAMPAIGN
APPROACH CONTROL
121.35 291.0

134°-312°
CONTACT CHAMPAIGN
APPROACH CONTROL
132.85 291.0

DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF

LEGEND

VFR CHECK POINTS

$\frac{70}{35}$ CEILING IN HUNDREDS OF FEET MSL / FLOOR IN HUNDREDS OF FEET MSL

▨ HEAVY STUDENT TRAINING SURFACE TO 3000' MSL

GLIDERS OPERATING WHEN ANNOUNCED ON CHAMPAIGN ATIS

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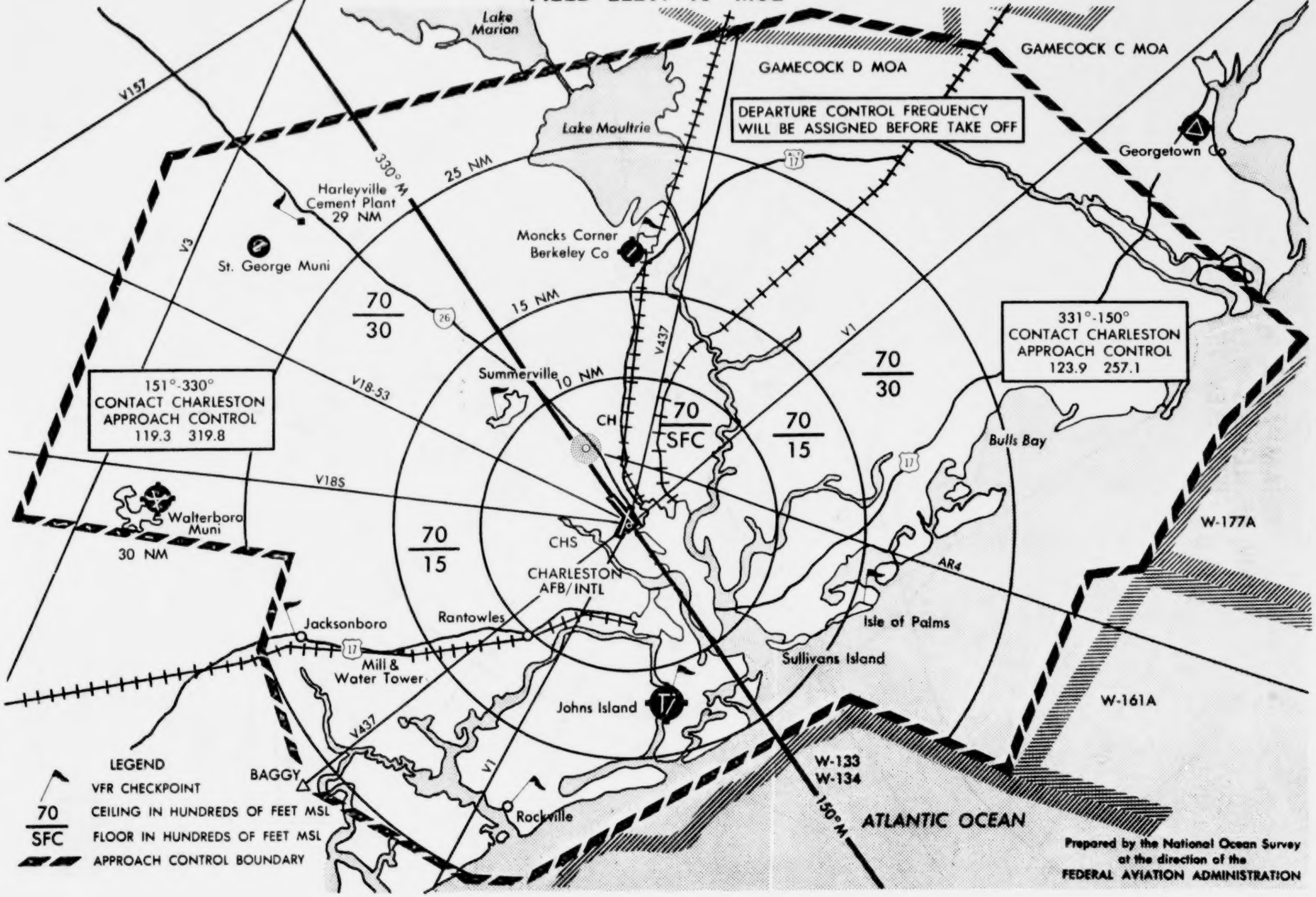
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLESTON, SOUTH CAROLINA
CHARLESTON AFB/MUN. AIRPORT
FIELD ELEV. 45' MSL



DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF

331°-150°
CONTACT CHARLESTON
APPROACH CONTROL
123.9 257.1

151°-330°
CONTACT CHARLESTON
APPROACH CONTROL
119.3 319.8

LEGEND
VFR CHECKPOINT
70 CEILING IN HUNDREDS OF FEET MSL
SFC FLOOR IN HUNDREDS OF FEET MSL
APPROACH CONTROL BOUNDARY

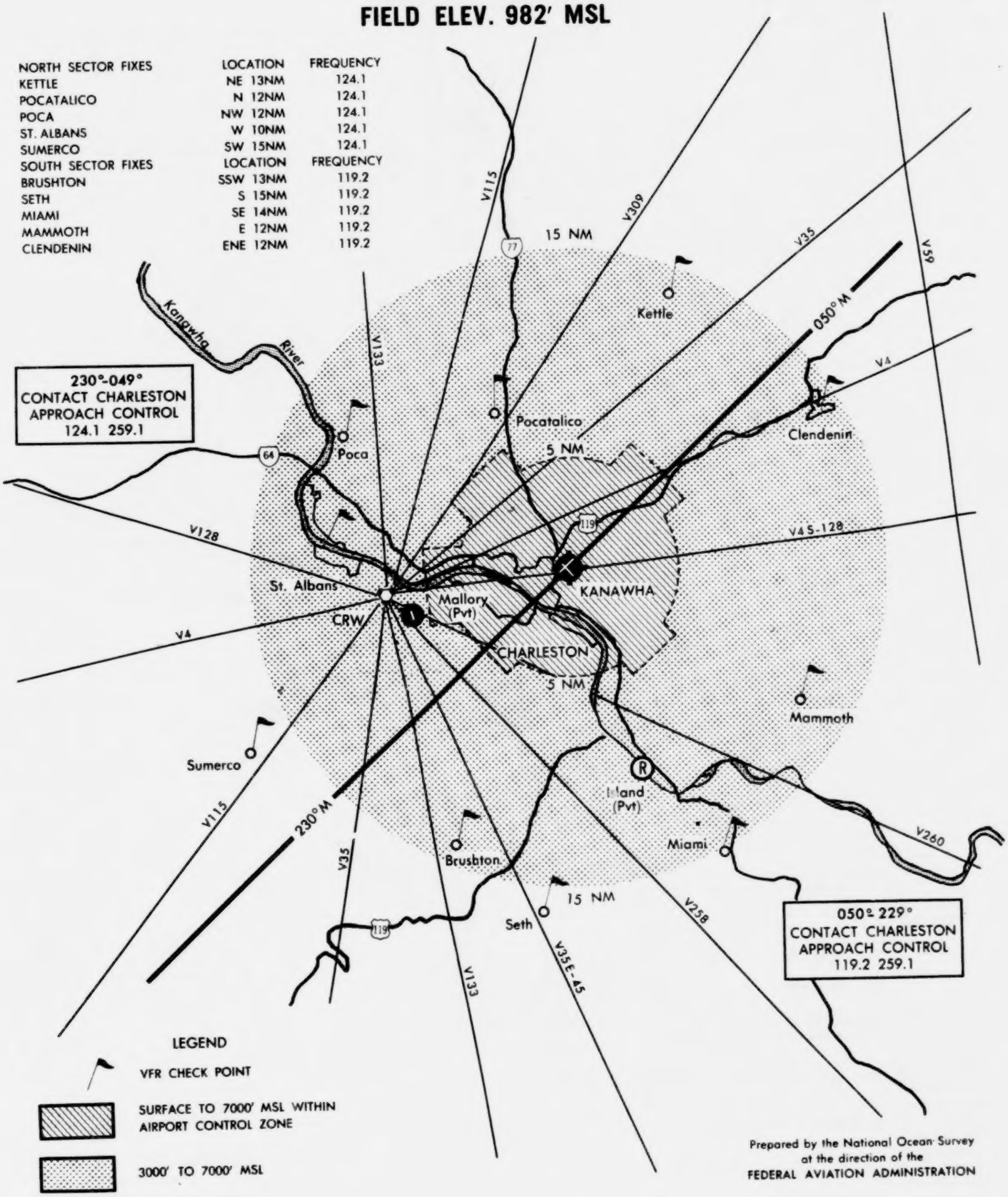
Lake Marion
Lake Moultrie
GAMECOCK D MOA
GAMECOCK C MOA
V157
V3
330° M
Harleyville Cement Plant 29 NM
St. George Muni
25 NM
15 NM
10 NM
Moncks Corner Berkeley Co
Georgetown Co
17
26
V437
V1
70/30
70/30
70/15
70/15
70/SFC
Summerville
CH
CHS
CHARLESTON AFB/INTL
V18-53
V18S
Walterboro Muni
30 NM
Bulls Bay
W-177A
AR4
W-161A
Isle of Palms
Sullivans Island
Jacksonboro
Rantowles
Mill & Water Tower
Johns Island
BAGGY
Rockville
W-133
W-134
150° M
ATLANTIC OCEAN

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLESTON, WEST VIRGINIA
KANAWHA AIRPORT
FIELD ELEV. 982′ MSL

NORTH SECTOR FIXES	LOCATION	FREQUENCY
KETTLE	NE 13NM	124.1
POCATALICO	N 12NM	124.1
POCA	NW 12NM	124.1
ST. ALBANS	W 10NM	124.1
SUMERCO	SW 15NM	124.1
SOUTH SECTOR FIXES	**LOCATION**	**FREQUENCY**
BRUSHTON	SSW 13NM	119.2
SETH	S 15NM	119.2
MIAMI	SE 14NM	119.2
MAMMOTH	E 12NM	119.2
CLENDENIN	ENE 12NM	119.2


V115
V309
V35
V59
15 NM
77
Kettle
050° M
V133
Kanawha River
V4
Pocatalico
Clendenin
Poca
5 NM
64
V128
119
V4 S-128
St. Albans
KANAWHA
Mallory (Pvt)
CRW
V4
CHARLESTON
5 NM
Mammoth
Sumerco
R
Island (Pvt)
V115
230° M
V260
Miami
Brushton
V35
15 NM
Seth
119
V258
V133
V35E-45

230°-049°
CONTACT CHARLESTON
APPROACH CONTROL
124.1 259.1

050°-229°
CONTACT CHARLESTON
APPROACH CONTROL
119.2 259.1

LEGEND

VFR CHECK POINT

▨ SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE

░ 3000′ TO 7000′ MSL

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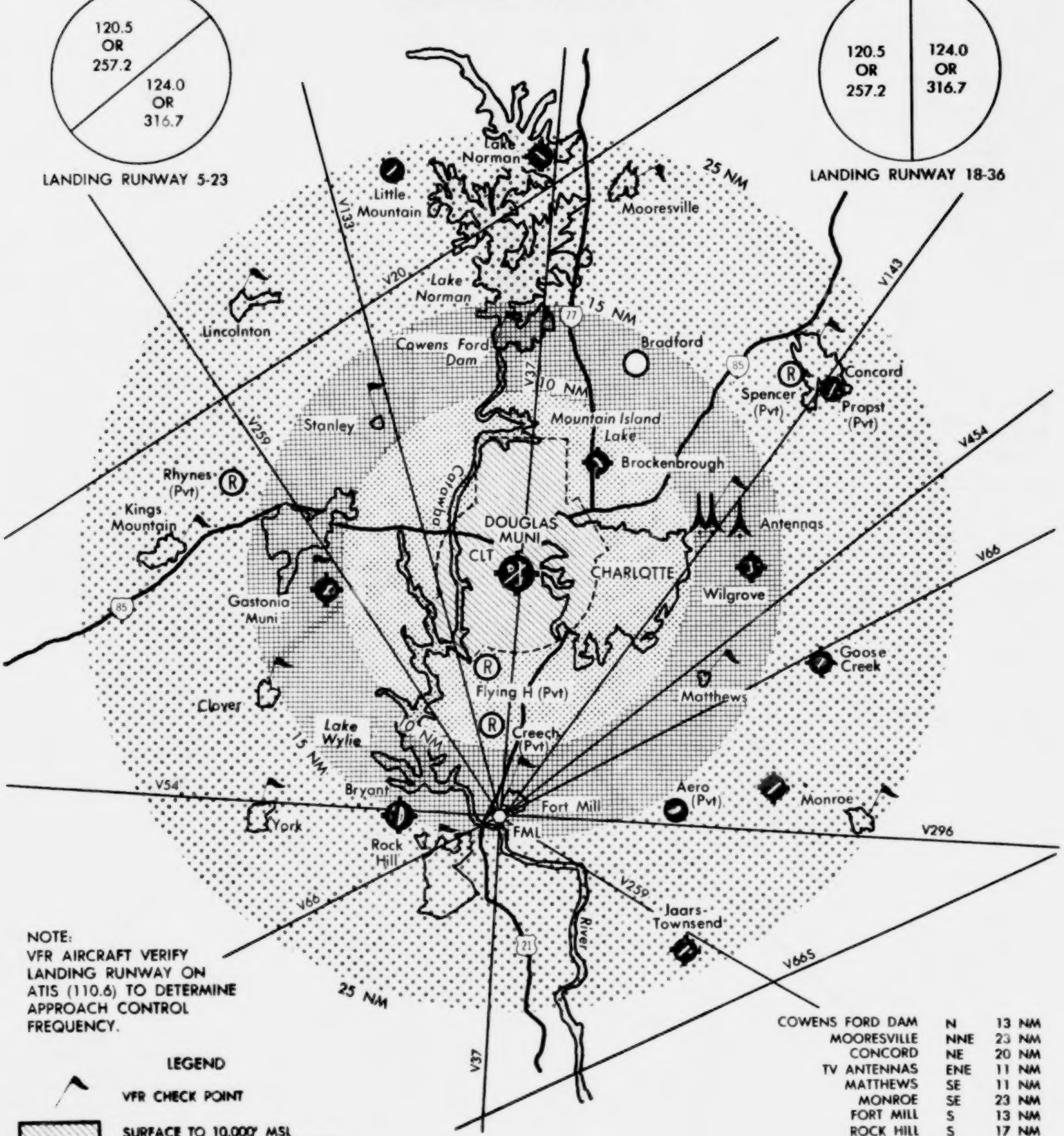
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLOTTE, N.C. DOUGLAS MUNICIPAL AIRPORT
FIELD ELEV. 749′ MSL


120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 5-23
120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 18-36
Lake Norman
Little Mountain
V133
25 NM
Mooresville
V20
Lake Norman
77
15 NM
V143
Lincolnton
Cowens Ford Dam
Bradford
85
Concord
V37
10 NM
Spencer (Pvt)
Propst (Pvt)
V259
Stanley
Mountain Island Lake
V454
Rhynes (Pvt)
Brockenbrough
Kings Mountain
Catawba
DOUGLAS MUNI
Antennas
CLT
CHARLOTTE
V66
85
Gastonia Muni
Wilgrove
Goose Creek
Flying H (Pvt)
Matthews
Clover
Lake Wylie
Creech (Pvt)
10 NM
15 NM
V54
Bryant
Fort Mill
Aero (Pvt)
Monroe
York
FML
V296
Rock Hill
V259
V66
Jaars-Townsend
21
River
V66S
25 NM
V37

NOTE:
VFR AIRCRAFT VERIFY
LANDING RUNWAY ON
ATIS (110.6) TO DETERMINE
APPROACH CONTROL
FREQUENCY.

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 10,000′ MSL WITHIN AIRPORT CONTROL ZONE
- ░ 1460′ MSL TO 10,000′ MSL
- ▦ 2300′ MSL TO 10,000′ MSL
- ⁘ 5000′ MSL TO 10,000′ MSL

COWENS FORD DAM	N	13 NM
MOORESVILLE	NNE	23 NM
CONCORD	NE	20 NM
TV ANTENNAS	ENE	11 NM
MATTHEWS	SE	11 NM
MONROE	SE	23 NM
FORT MILL	S	13 NM
ROCK HILL	S	17 NM
YORK	SW	21 NM
CLOVER	SW	16 NM
GASTONIA	W	11 NM
KINGS MOUNTAIN	W	20 NM
STANLEY	NW	12 NM
LINCOLNTON	NW	22 NM

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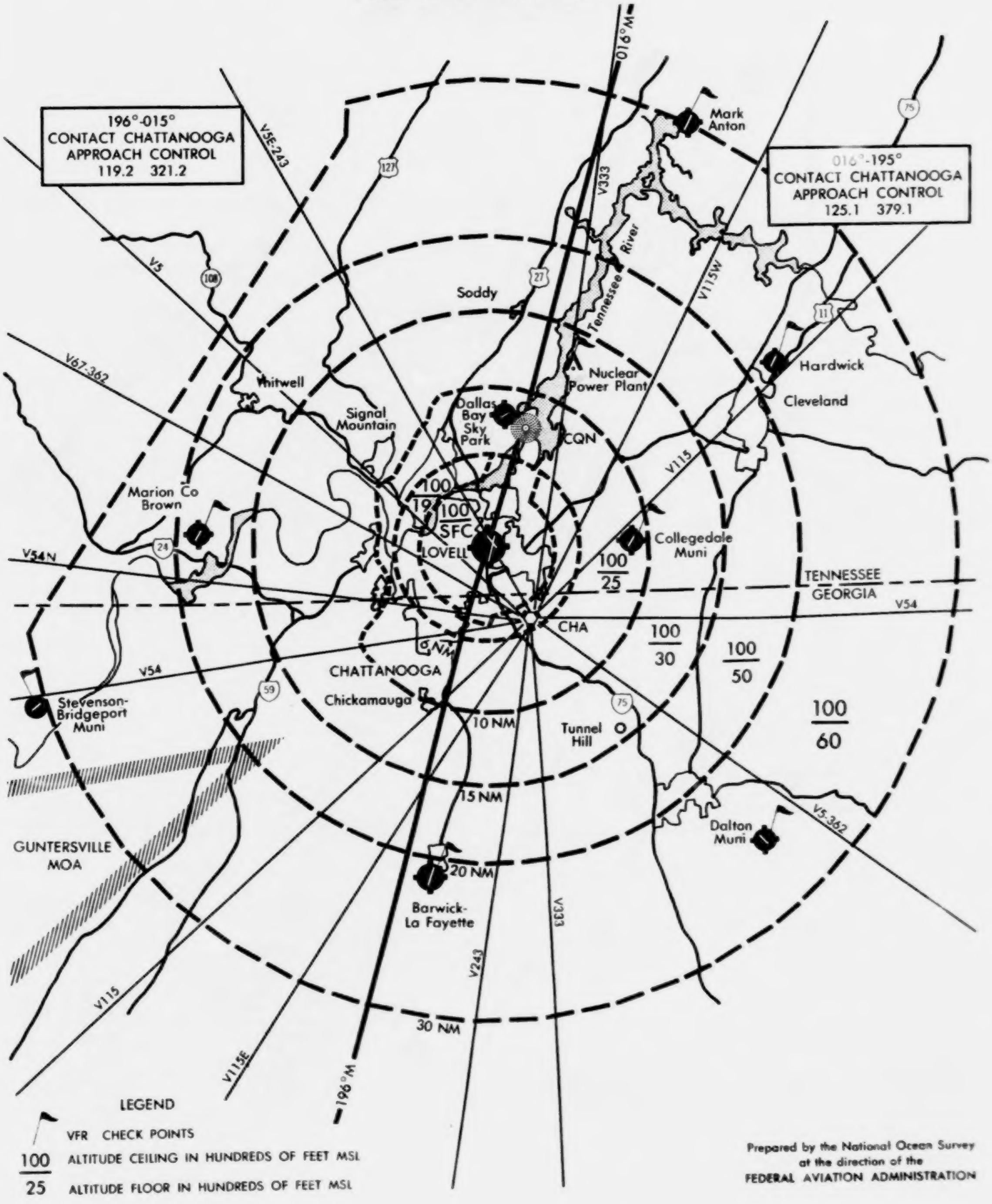
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHATTANOOGA, TENN.
LOVELL FIELD
FIELD ELEV 682' MSL


196°-015°
CONTACT CHATTANOOGA
APPROACH CONTROL
119.2 321.2
016°-195°
CONTACT CHATTANOOGA
APPROACH CONTROL
125.1 379.1
016°M
196°M
Mark Anton
V5E-243
V5
V67-362
127
108
27
75
11
24
59
V333
V115W
V115
V115E
V243
V54N
V54
V5-362
Tennessee River
Soddy
Nuclear Power Plant
Whitwell
Signal Mountain
Dallas Bay Sky Park
CQN
Hardwick
Cleveland
Marion Co Brown
100
19
100
SFC
LOVELL
Collegedale Muni
100
25
TENNESSEE
GEORGIA
CHA
100
30
100
50
100
60
5 NM
CHATTANOOGA
Chickamauga
10 NM
Tunnel Hill
15 NM
20 NM
30 NM
Stevenson-Bridgeport Muni
GUNTERSVILLE MOA
Dalton Muni
Barwick-La Fayette
LEGEND
VFR CHECK POINTS
100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
25 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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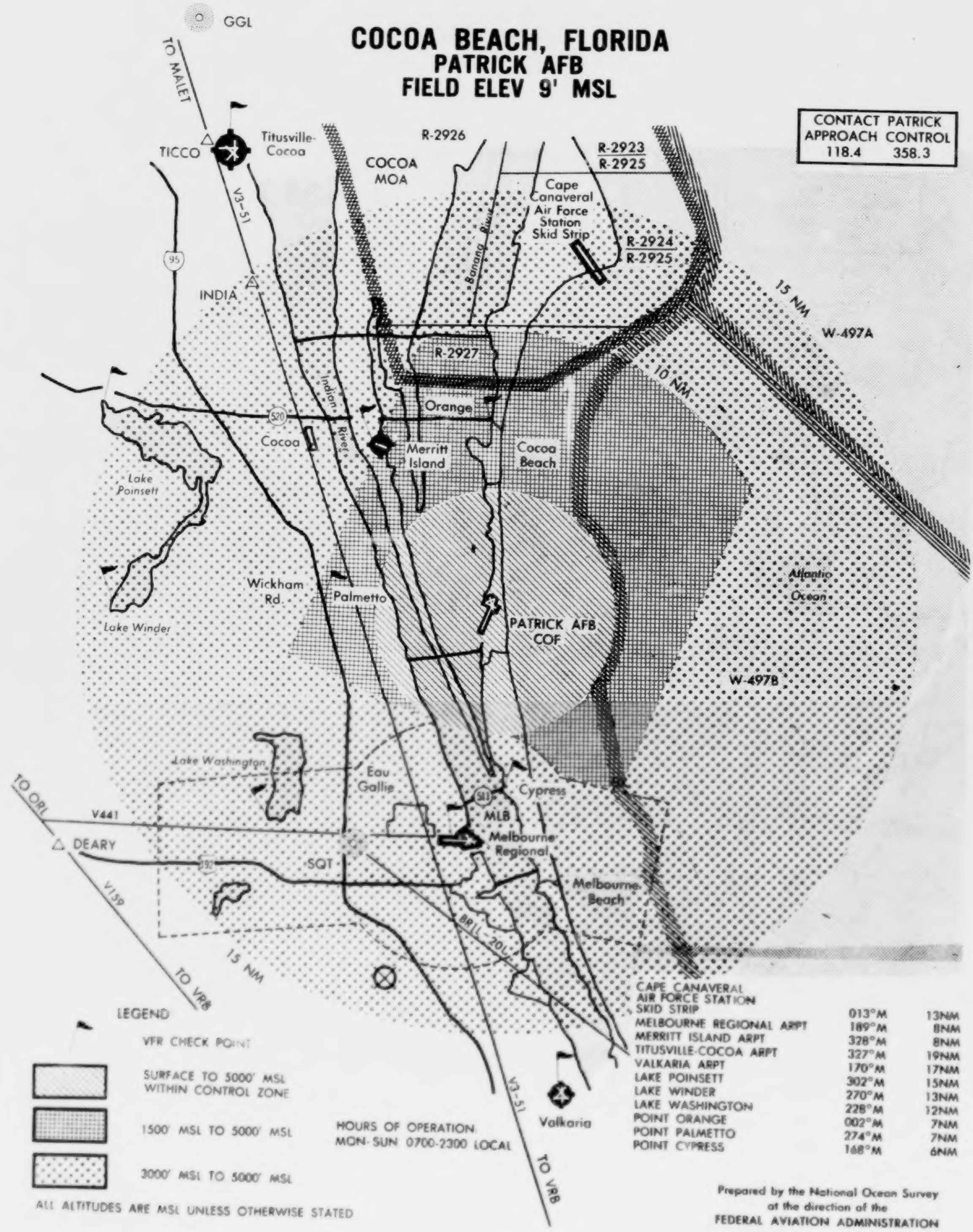
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, FLORIDA
PATRICK AFB
FIELD ELEV 9' MSL

CONTACT PATRICK APPROACH CONTROL
118.4 358.3


GGL
TO MALET
TICCO
Titusville-Cocoa
V3-51
95
INDIA
R-2926
COCOA MOA
R-2923
R-2925
Cape Canaveral Air Force Station Skid Strip
R-2924
R-2925
Banana River
15 NM
W-497A
R-2927
10 NM
Orange
520
Cocoa
Indian River
Merritt Island
Cocoa Beach
Lake Poinsett
Atlantic Ocean
Wickham Rd.
Palmetto
PATRICK AFB COF
Lake Winder
W-497B
Lake Washington
Eau Gallie
513
Cypress
MLB
TO ORL
V441
DEARY
Melbourne Regional
SQT
192
Melbourne Beach
V159
BRIL-20L
15 NM
TO VRB
V3-51
Valkaria
TO VRB

LEGEND

VFR CHECK POINT

▨ SURFACE TO 5000' MSL WITHIN CONTROL ZONE

▦ 1500' MSL TO 5000' MSL

⁙ 3000' MSL TO 5000' MSL

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

HOURS OF OPERATION
MON-SUN 0700-2300 LOCAL

CAPE CANAVERAL AIR FORCE STATION SKID STRIP	013°M	13NM
MELBOURNE REGIONAL ARPT	189°M	8NM
MERRITT ISLAND ARPT	328°M	8NM
TITUSVILLE-COCOA ARPT	327°M	19NM
VALKARIA ARPT	170°M	17NM
LAKE POINSETT	302°M	15NM
LAKE WINDER	270°M	13NM
LAKE WASHINGTON	228°M	12NM
POINT ORANGE	002°M	7NM
POINT PALMETTO	274°M	7NM
POINT CYPRESS	168°M	6NM

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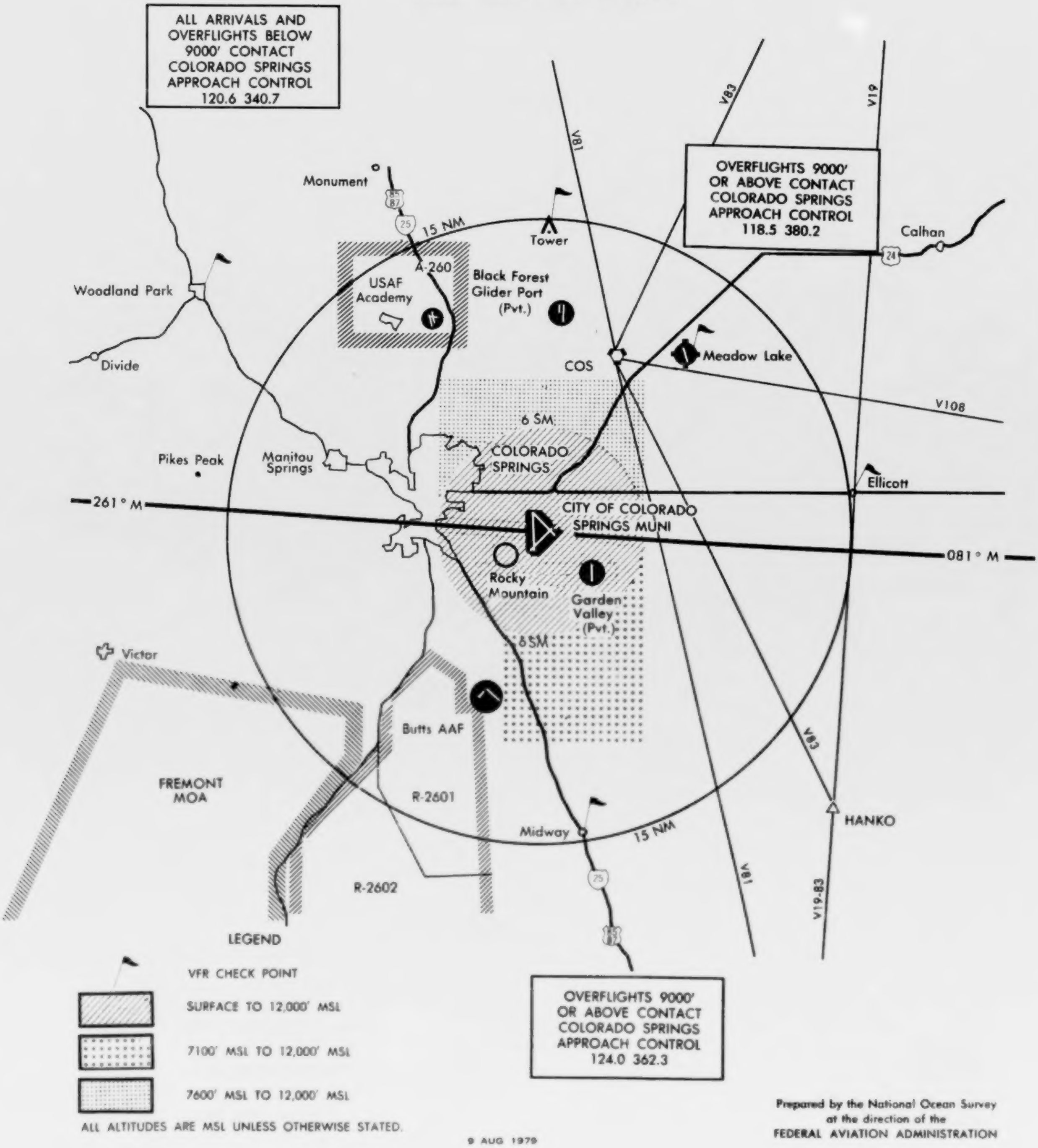
22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO
FIELD ELEV. 6172′ MSL



ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL 120.6 340.7

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 118.5 380.2

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 124.0 362.3

V83
V19
V81
Monument
85
87
25
15 NM
Tower
Calhan
24
A-260
USAF Academy
Black Forest Glider Port (Pvt.)
Woodland Park
Meadow Lake
COS
Divide
V108
6 SM
Pikes Peak
Manitou Springs
COLORADO SPRINGS
Ellicott
261° M
CITY OF COLORADO SPRINGS MUNI
081° M
Rocky Mountain
Garden Valley (Pvt.)
6 SM
Victor
Butts AAF
V83
FREMONT MOA
R-2601
HANKO
Midway
15 NM
V81
25
V19-83
R-2602
85
LEGEND
VFR CHECK POINT
SURFACE TO 12,000′ MSL
7100′ MSL TO 12,000′ MSL
7600′ MSL TO 12,000′ MSL

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

9 AUG 1979

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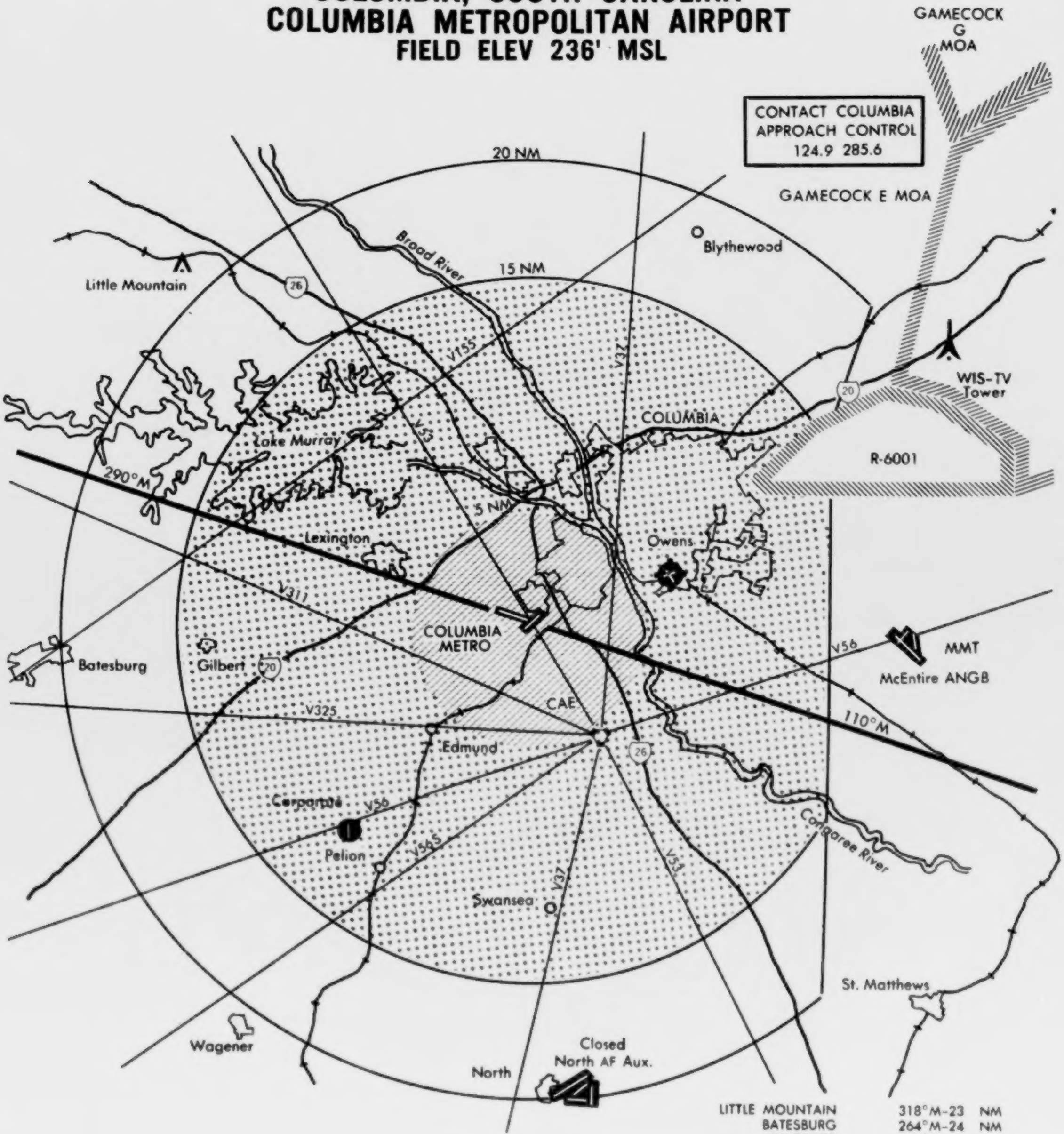
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBIA, SOUTH CAROLINA
COLUMBIA METROPOLITAN AIRPORT
FIELD ELEV 236' MSL


GAMECOCK G MOA
CONTACT COLUMBIA APPROACH CONTROL 124.9 285.6
GAMECOCK E MOA
20 NM
15 NM
5 NM
Blythewood
Little Mountain
26
Broad River
V155
V37
V53
WIS-TV Tower
20
COLUMBIA
R-6001
Lake Murray
290°M
Lexington
Owens
V311
COLUMBIA METRO
Batesburg
Gilbert
20
V56
MMT
McEntire ANGB
CAE
110°M
V325
Edmund
26
Corporate
V56
Pelion
V56S
Congaree River
Swansea
V37
V53
St. Matthews
Wagener
Closed North AF Aux.
North

CONTACT COLUMBIA
APPROACH CONTROL
118.2 338.2

LITTLE MOUNTAIN	318°M-23 NM
BATESBURG	264°M-24 NM
WAGENER	200°M-22 NM
NORTH AFB AUX.	180°M-21 NM
ST. MATTHEWS	130°M-28 NM
McENTIRE ANGB	095°M-17 NM
WIS TV	060°M-21.3 NM
BLYTHEWOOD	010°M-20 NM

LEGEND

▨ SURFACE TO 6000 MSL

⁙ 2000 TO 6000 MSL

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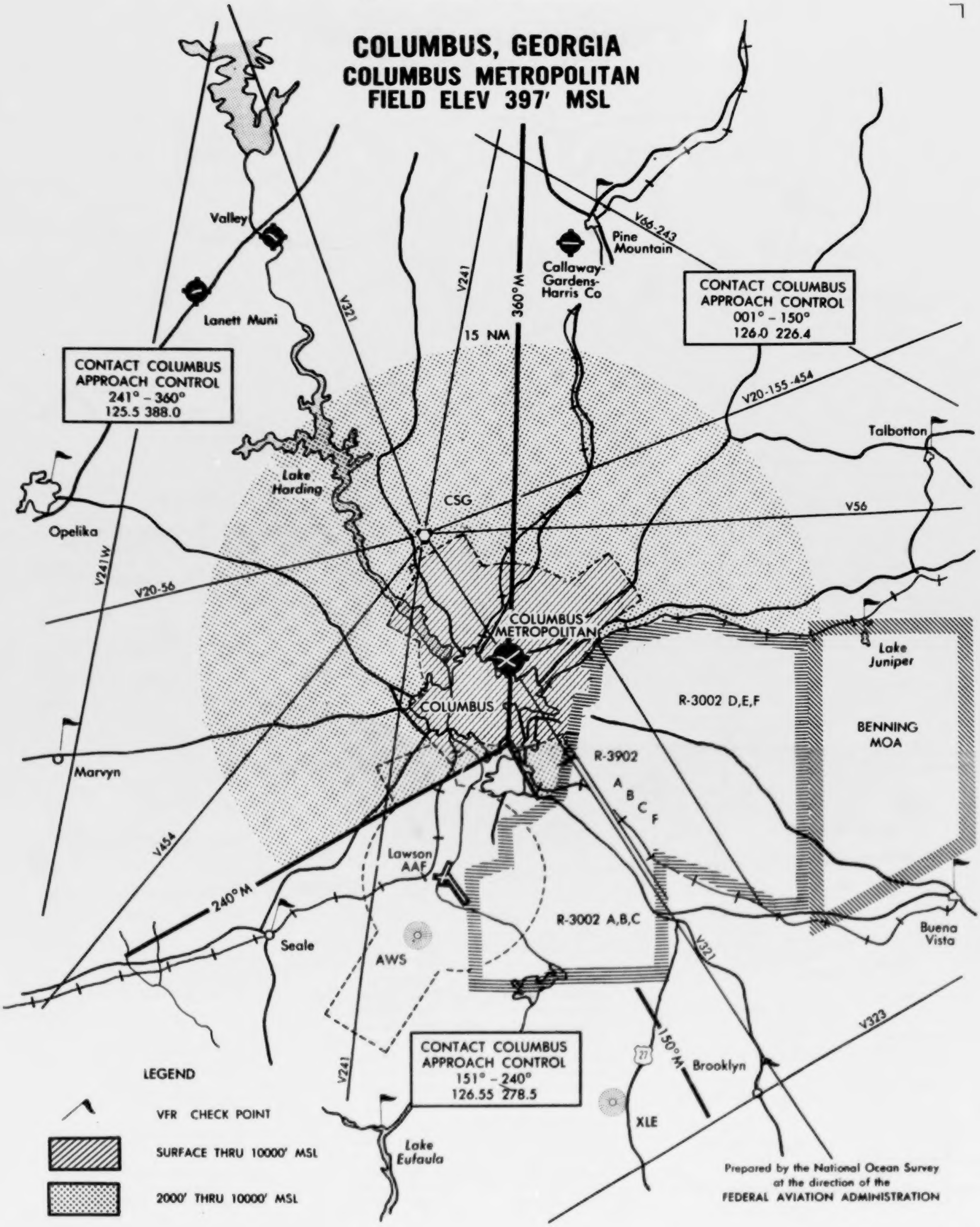
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS, GEORGIA
COLUMBUS METROPOLITAN
FIELD ELEV 397′ MSL


Valley
Lanett Muni
CONTACT COLUMBUS APPROACH CONTROL
241° – 360°
125.5 388.0
V321
V241
360°M
15 NM
Pine Mountain
Callaway-Gardens-Harris Co
V66-243
CONTACT COLUMBUS APPROACH CONTROL
001° – 150°
126.0 226.4
V20-155-454
Talbotton
Lake Harding
CSG
V56
Opelika
V241W
V20-56
COLUMBUS METROPOLITAN
Lake Juniper
COLUMBUS
R-3002 D,E,F
BENNING MOA
R-3902
A B C F
Marvyn
V454
Lawson AAF
240°M
R-3002 A,B,C
Buena Vista
Seale
AWS
V321
150°M
27
Brooklyn
V323
CONTACT COLUMBUS APPROACH CONTROL
151° – 240°
126.55 278.5
V241
XLE
Lake Eufaula
LEGEND
VFR CHECK POINT
SURFACE THRU 10000′ MSL
2000′ THRU 10000′ MSL

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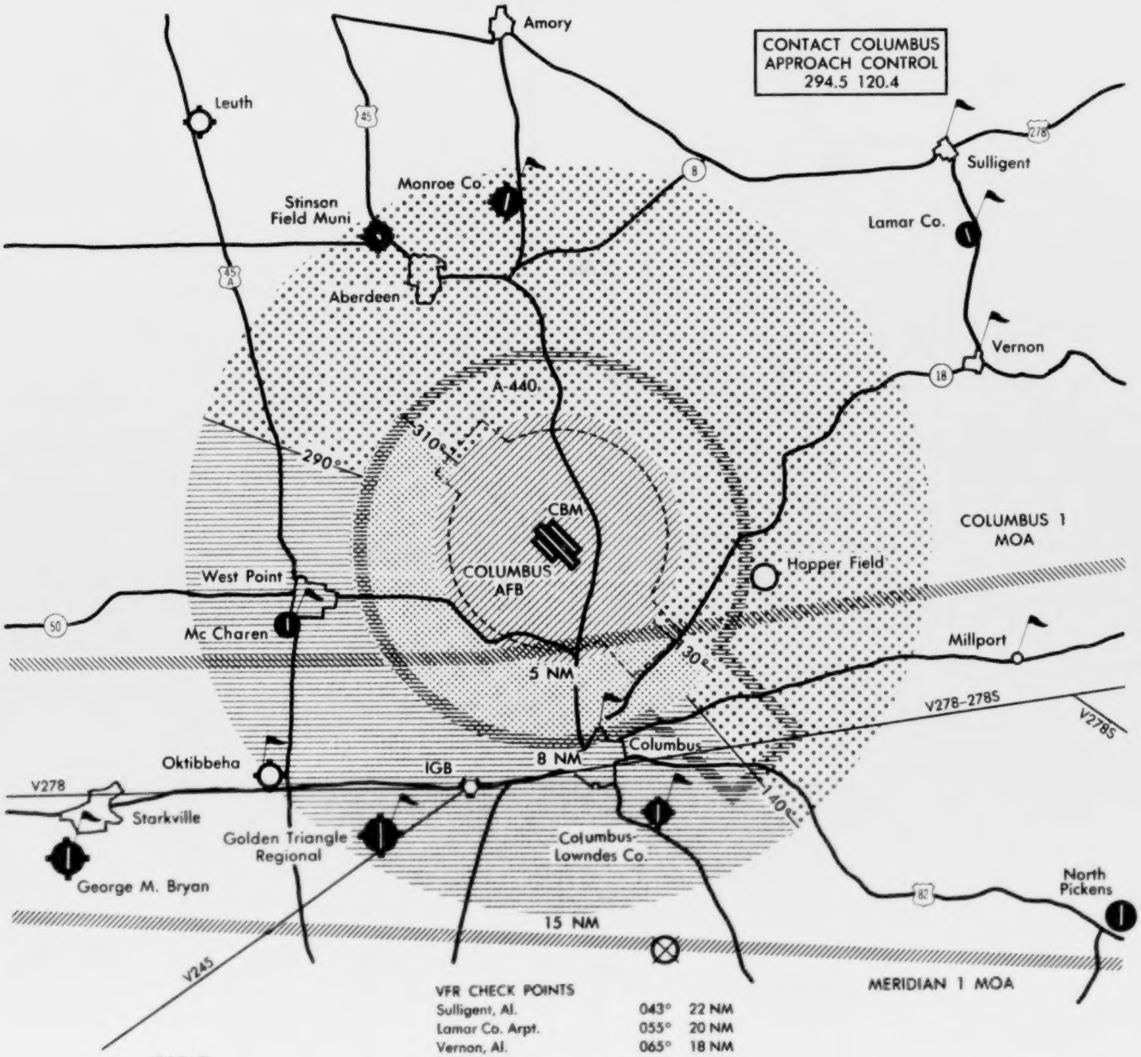
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI
FIELD ELEV 219′ MSL


Amory
Leuth
45
278
Sulligent
8
Monroe Co.
Stinson Field Muni
Lamar Co.
45 A
Aberdeen
Vernon
18
A-440
310°
290°
CBM
COLUMBUS AFB
COLUMBUS 1 MOA
Hopper Field
West Point
50
Mc Charen
Millport
30°
5 NM
V278-278S
V278S
Columbus
Oktibbeha
IGB
8 NM
V278
140°
Starkville
Golden Triangle Regional
Columbus-Lowndes Co.
George M. Bryan
North Pickens
82
15 NM
V245
MERIDIAN 1 MOA

CONTACT COLUMBUS
APPROACH CONTROL
294.5 120.4

LEGEND

⚑	VFR CHECK POINTS
▨	SURFACE TO 7000′ MSL
░	1200′ MSL TO 7000′ MSL
▒	1800′ MSL TO 7000′ MSL
▤	3000′ MSL TO 7000′ MSL

VFR CHECK POINTS		
Sulligent, Al.	043°	22 NM
Lamar Co. Arpt.	055°	20 NM
Vernon, Al.	065°	18 NM
Millport, Al.	100°	19 NM
Columbus-Lowndes Co. Arpt.	158°	11 NM
Columbus, Ms.	170°	10 NM
Golden Triangle Reg. Arpt.	210°	12 NM
George M. Bryan Arpt.	235°	24 NM
Mc Charen Arpt.	250°	13 NM
Monroe Co. Arpt.	350°	15 NM
Oktibbeha Arpt.	228°	15 NM

VISUAL HOLDING POINTS		
Southwest of Vernon, Al.	065°	18 NM
West of Millport, Al.	100°	18 NM
South of the City of Columbus	170°	10 NM
West of West Point	260°	13 NM
West of Aberdeen	330°	13 NM

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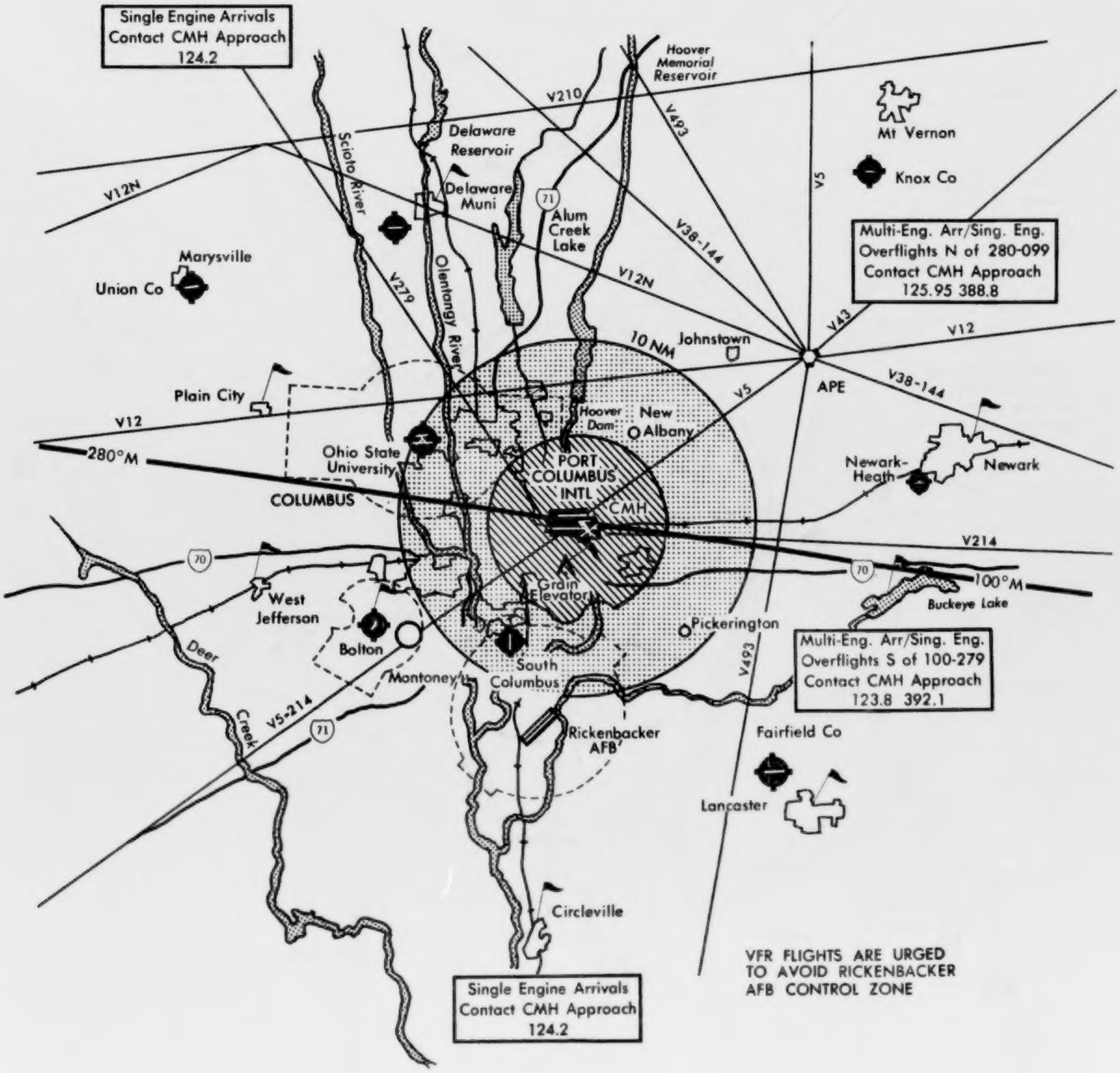
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS, OHIO, PORT COLUMBUS INTL AIRPORT
FIELD ELEV. 816′ MSL


Single Engine Arrivals Contact CMH Approach 124.2
Hoover Memorial Reservoir
V210
V493
Mt Vernon
V5
Knox Co
V12N
Scioto River
Delaware Reservoir
Delaware Muni
71
Alum Creek Lake
V38-144
Multi-Eng. Arr/Sing. Eng. Overflights N of 280-099 Contact CMH Approach 125.95 388.8
Marysville
Union Co
V279
Olentangy River
V12N
10 NM
Johnstown
V43
V12
APE
V38-144
Plain City
V5
Hoover Dam
New Albany
V12
280°M
Ohio State University
PORT COLUMBUS INTL
CMH
Newark-Heath
Newark
COLUMBUS
V214
70
70
100°M
Buckeye Lake
West Jefferson
Grain Elevator
Pickerington
Bolton
South Columbus
Multi-Eng. Arr/Sing. Eng. Overflights S of 100-279 Contact CMH Approach 123.8 392.1
Deer Creek
Montoney
V493
V5-214
71
Rickenbacker AFB
Fairfield Co
Lancaster
Circleville
VFR FLIGHTS ARE URGED TO AVOID RICKENBACKER AFB CONTROL ZONE
Single Engine Arrivals Contact CMH Approach 124.2

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6500 MSL WITHIN AIRPORT CONTROL ZONE

░ 3500 TO 6500 MSL

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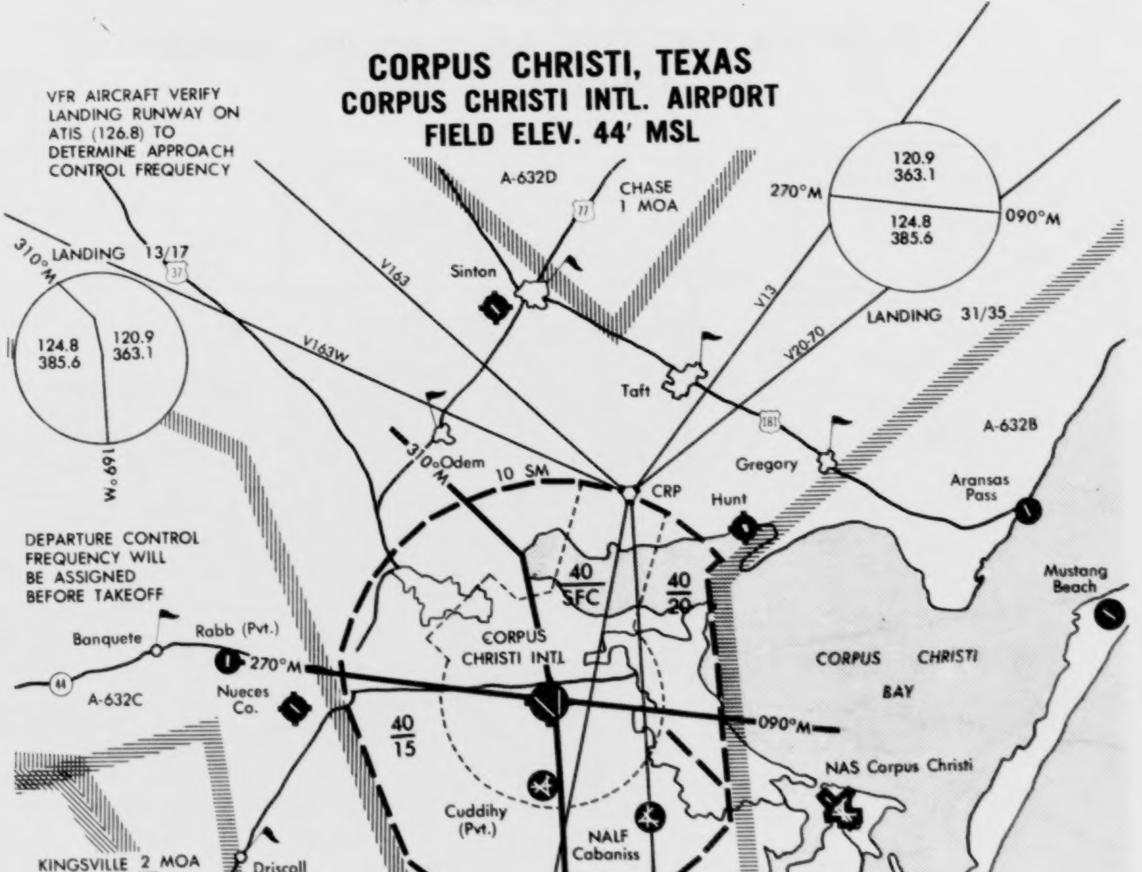
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CORPUS CHRISTI, TEXAS
CORPUS CHRISTI INTL. AIRPORT
FIELD ELEV. 44′ MSL


VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (126.8) TO DETERMINE APPROACH CONTROL FREQUENCY
LANDING 13/17
310°M
124.8
385.6
120.9
363.1
169°M
A-632D
CHASE 1 MOA
77
37
Sinton
V163
V163W
270°M
120.9
363.1
124.8
385.6
090°M
LANDING 31/35
V13
V20-70
Taft
181
Gregory
A-632B
Aransas Pass
310°M
Odem
10 SM
CRP
Hunt
Mustang Beach
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
40/SFC
40/20
Banquete
Rabb (Pvt.)
270°M
44
A-632C
Nueces Co.
CORPUS CHRISTI INTL
CORPUS CHRISTI BAY
40/15
090°M
NAS Corpus Christi
Cuddihy (Pvt.)
NALF Cabaniss
KINGSVILLE 2 MOA
Driscoll
NALF Waldron
Bishop Muni
169°M
Chapman Ranch
Kingsville
Laureles H.Q. Ranch
Kingsville NAS
A-632A
NAAS Kingsville South (Closed)
GULF OF MEXICO
V13W-70
V13-20-163
ALAZAN BAY
BAFFIN BAY

LEGEND

VFR CHECK POINT

80/20 CEILING IN HUNDREDS OF FEET MSL / FLOOR IN HUNDREDS OF FEET MSL

Sinton	N	16 NM
Taft	NNE	14 NM
Gregory	NE	15 NM
Chapman Ranch	SSE	11 NM
Laureles H.Q. Ranch	S	14 NM
Driscoll	SW	14 NM
Banquete	W	16 NM
Odem	NNW	12 NM

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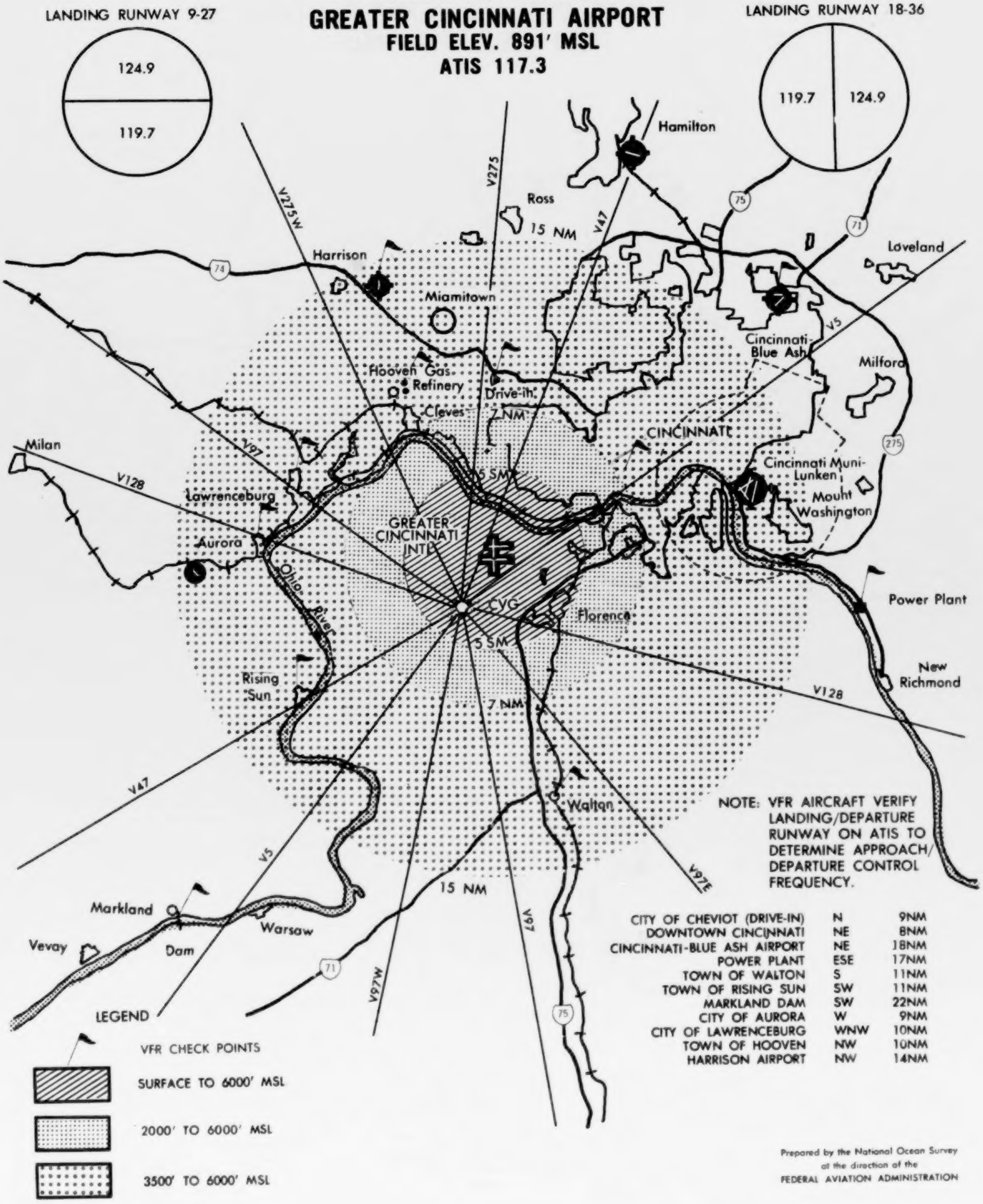
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COVINGTON, KENTUCKY

GREATER CINCINNATI AIRPORT

FIELD ELEV. 891′ MSL
ATIS 117.3


LANDING RUNWAY 9-27
124.9
119.7
LANDING RUNWAY 18-36
119.7
124.9
Hamilton
V275W
V275
V47
Ross
15 NM
75
71
Loveland
Harrison
74
Miamitown
Cincinnati-Blue Ash
V5
Milford
Hooven Gas Refinery
Drive-in
Cleves
7 NM
CINCINNATI
275
Milan
V97
V128
5 SM
Cincinnati Muni-Lunken
Mount Washington
Lawrenceburg
GREATER CINCINNATI INTL
Aurora
Ohio River
CVG
Florence
Power Plant
5 SM
Rising Sun
New Richmond
V128
7 NM
V47
Walton
V5
V97E
15 NM
Markland
Warsaw
Vevay
Dam
V97
71
V97W
75
LEGEND

NOTE: VFR AIRCRAFT VERIFY LANDING/DEPARTURE RUNWAY ON ATIS TO DETERMINE APPROACH/DEPARTURE CONTROL FREQUENCY.

CITY OF CHEVIOT (DRIVE-IN)	N	9NM
DOWNTOWN CINCINNATI	NE	8NM
CINCINNATI-BLUE ASH AIRPORT	NE	18NM
POWER PLANT	ESE	17NM
TOWN OF WALTON	S	11NM
TOWN OF RISING SUN	SW	11NM
MARKLAND DAM	SW	22NM
CITY OF AURORA	W	9NM
CITY OF LAWRENCEBURG	WNW	10NM
TOWN OF HOOVEN	NW	10NM
HARRISON AIRPORT	NW	14NM

LEGEND

- VFR CHECK POINTS
- ▨ SURFACE TO 6000′ MSL
- ░ 2000′ TO 6000′ MSL
- ⁙ 3500′ TO 6000′ MSL

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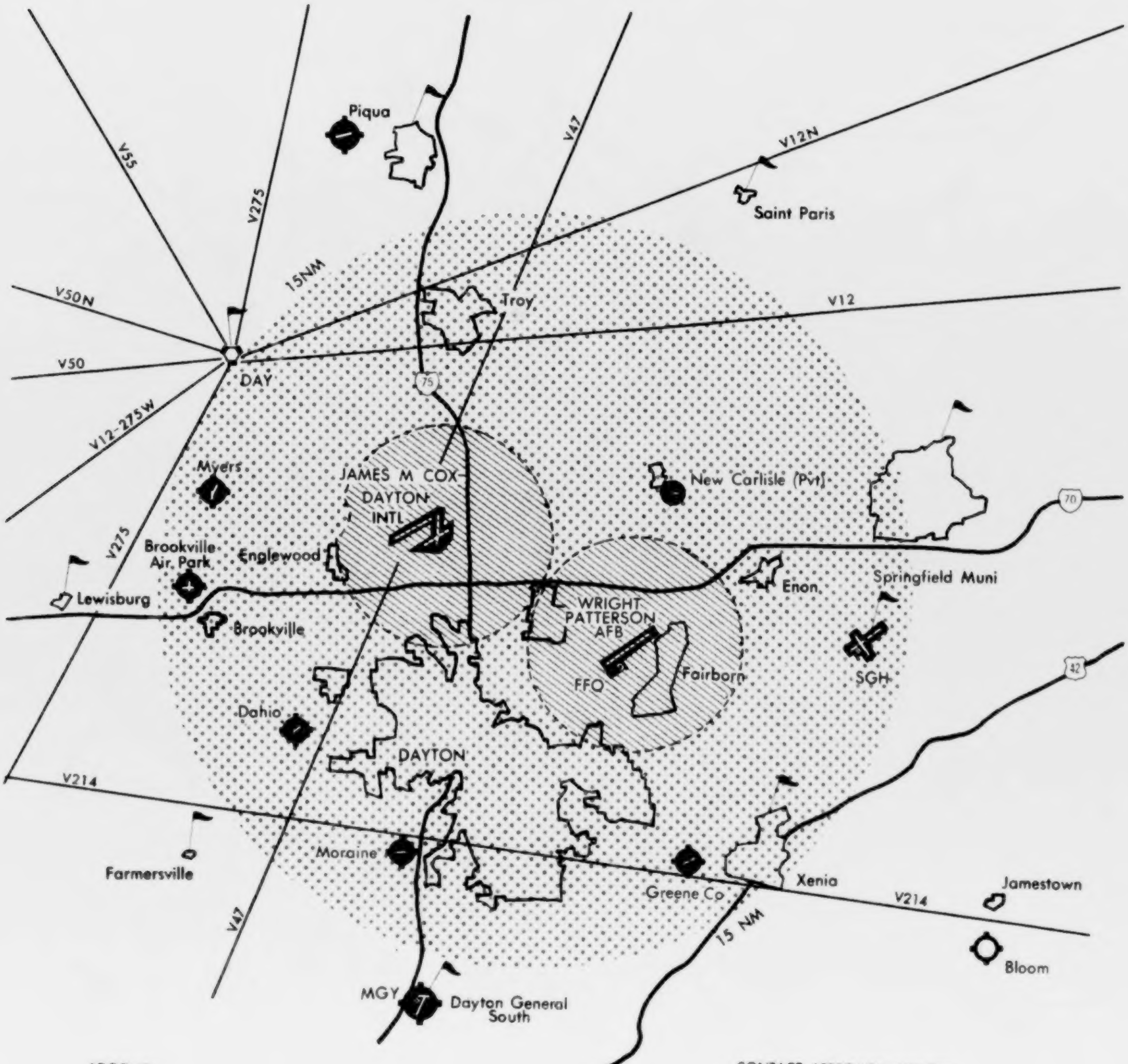
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DAYTON, OHIO JAMES M. COX DAYTON INTERNATIONAL AND WRIGHT PATTERSON AFB
FIELD ELEV 1008' MSL


V55
V275
Piqua
V47
V12N
Saint Paris
15NM
V50N
Troy
V12
V50
DAY
75
V12-275W
Myers
JAMES M COX
DAYTON
INTL
New Carlisle (Pvt)
70
V275
Brookville
Air Park
Englewood
Springfield Muni
Lewisburg
Enon
WRIGHT
PATTERSON
AFB
Brookville
SGH
FFO
Fairborn
42
Dahio
DAYTON
V214
Moraine
Farmersville
Xenia
Jamestown
Greene Co
V214
V47
15 NM
Bloom
MGY
Dayton General
South

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL
WITHIN AIRPORT CONTROL ZONE

░ 3000' MSL TO 6000' MSL

CONTACT APPROACH CONTROL
ON FREQUENCIES
126.5 (070°-239°)
118.0 (240°-069°)

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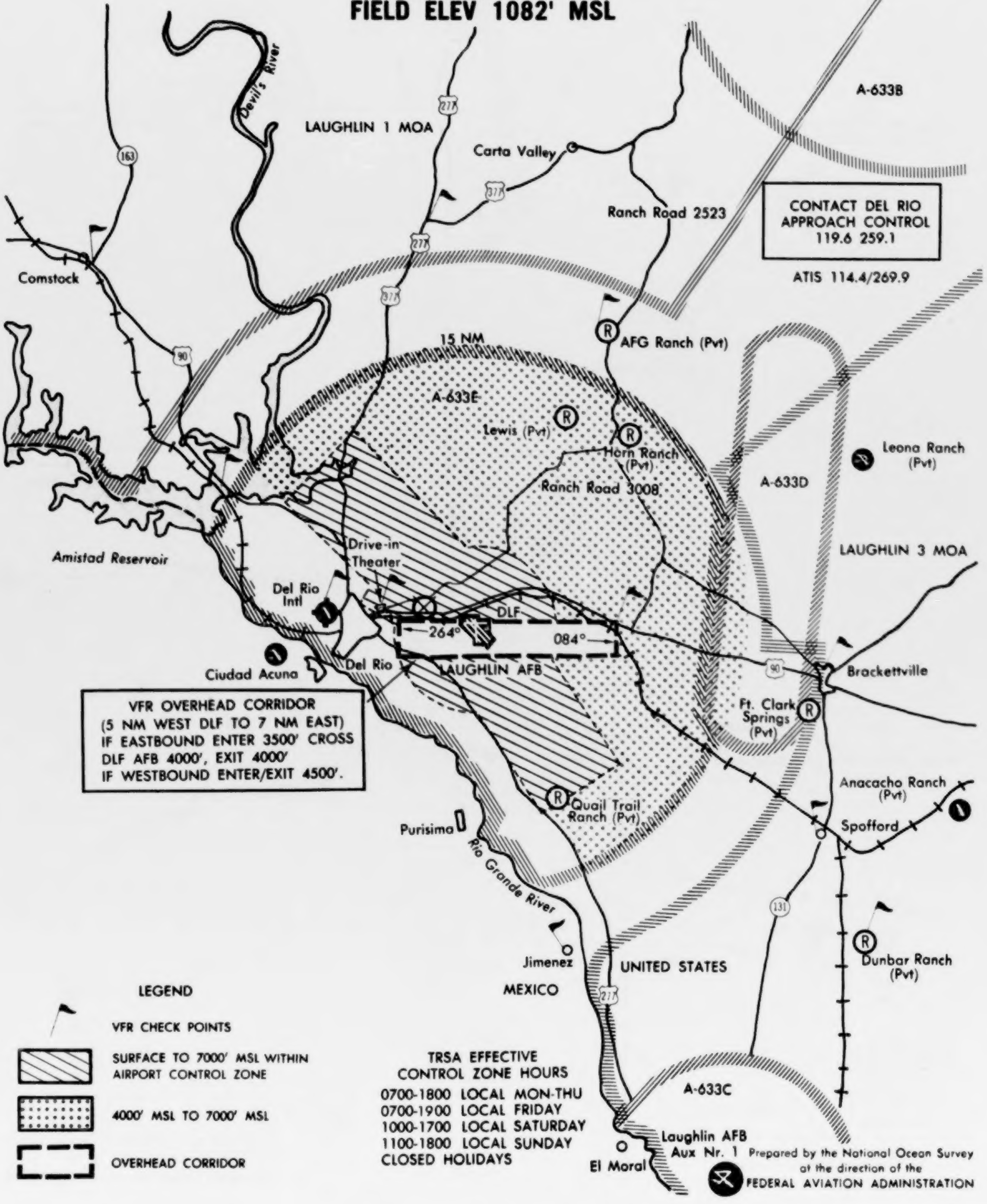
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DEL RIO, TEXAS
LAUGHLIN AFB
FIELD ELEV 1082' MSL


Devil's River
277
LAUGHLIN 1 MOA
Carta Valley
163
377
277
Ranch Road 2523
A-633B
277
Comstock
90
15 NM
AFG Ranch (Pvt)
A-633E
Lewis (Pvt)
Horn Ranch (Pvt)
Leona Ranch (Pvt)
Ranch Road 3008
A-633D
LAUGHLIN 3 MOA
Amistad Reservoir
Drive-in Theater
Del Rio Intl
DLF
264°
084°
Ciudad Acuna
Del Rio
LAUGHLIN AFB
90
Brackettville
Ft. Clark Springs (Pvt)
Anacacho Ranch (Pvt)
Quail Trail Ranch (Pvt)
Spofford
Purisima
Rio Grande River
131
Dunbar Ranch (Pvt)
Jimenez
UNITED STATES
MEXICO
277
A-633C
Laughlin AFB Aux Nr. 1
El Moral
LEGEND
VFR CHECK POINTS
SURFACE TO 7000' MSL WITHIN AIRPORT CONTROL ZONE
4000' MSL TO 7000' MSL
OVERHEAD CORRIDOR

CONTACT DEL RIO
APPROACH CONTROL
119.6 259.1

ATIS 114.4/269.9

VFR OVERHEAD CORRIDOR
(5 NM WEST DLF TO 7 NM EAST)
IF EASTBOUND ENTER 3500' CROSS
DLF AFB 4000', EXIT 4000'
IF WESTBOUND ENTER/EXIT 4500'.

TRSA EFFECTIVE
CONTROL ZONE HOURS
0700-1800 LOCAL MON-THU
0700-1900 LOCAL FRIDAY
1000-1700 LOCAL SATURDAY
1100-1800 LOCAL SUNDAY
CLOSED HOLIDAYS

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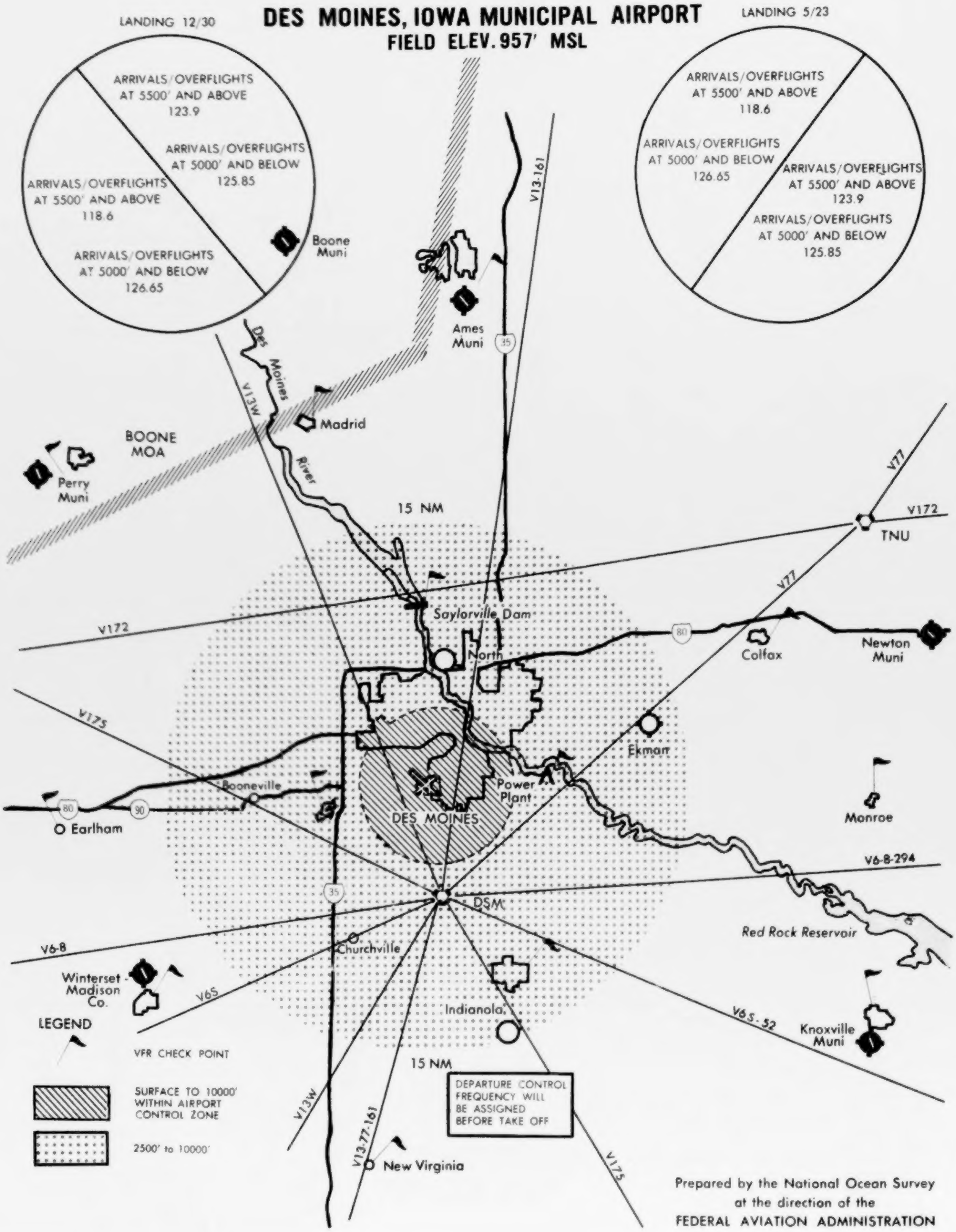
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DES MOINES, IOWA MUNICIPAL AIRPORT
FIELD ELEV. 957′ MSL


LANDING 12/30
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 125.85
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 126.65
LANDING 5/23
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 126.65
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 125.85
Boone Muni
V13-161
Ames Muni
35
Des Moines River
V13W
Madrid
BOONE MOA
Perry Muni
15 NM
V77
V172
TNU
Saylorville Dam
V172
80
North
Colfax
Newton Muni
V175
Ekman
Power Plant
Booneville
80
90
Earlham
DES MOINES
Monroe
V6-8-294
35
DSM
Red Rock Reservoir
V6-8
Churchville
Winterset-Madison Co.
V6S
Indianola
V6S-52
Knoxville Muni
LEGEND
VFR CHECK POINT
SURFACE TO 10000′ WITHIN AIRPORT CONTROL ZONE
2500′ to 10000′
15 NM
V13W
V13-77-161
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF
New Virginia
V175

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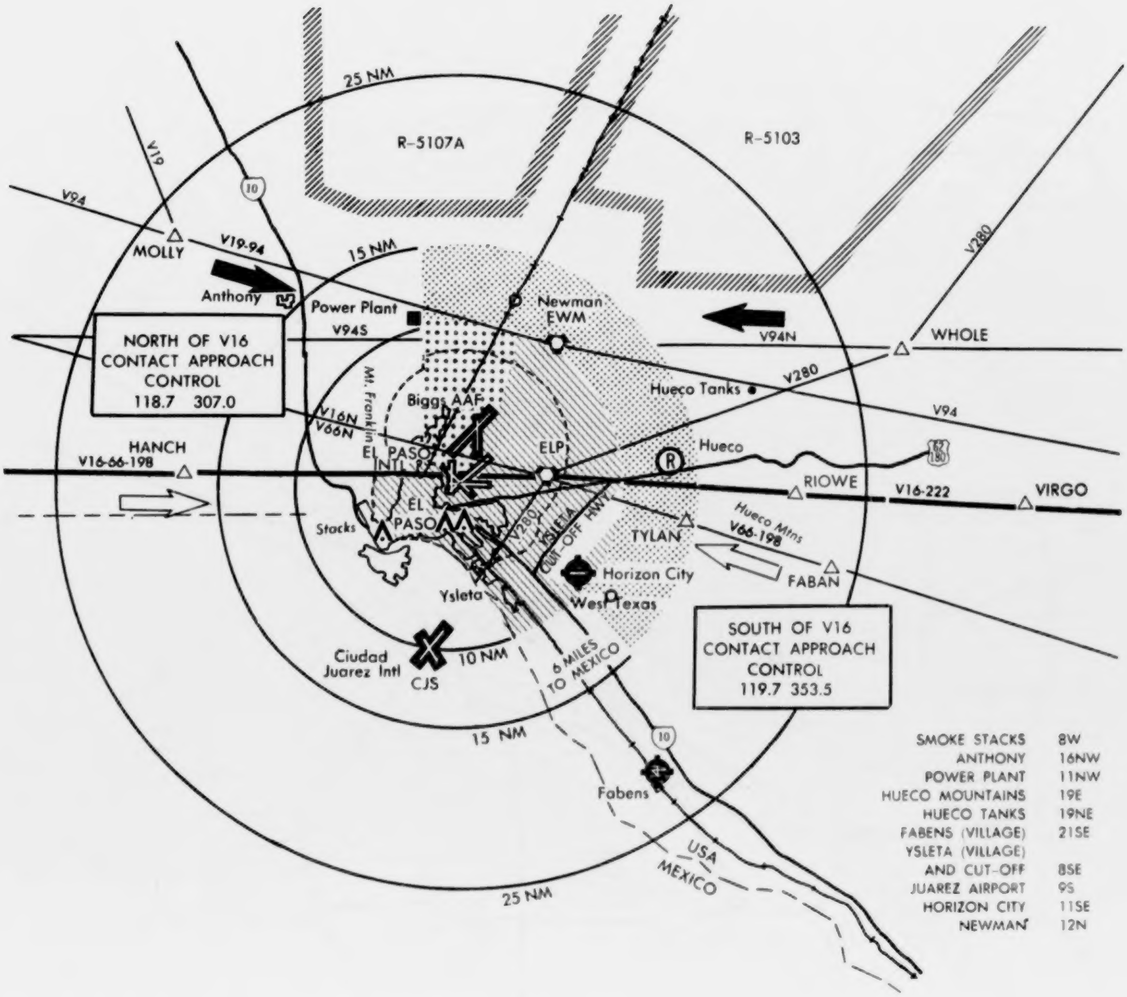
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

EL PASO, TEXAS, EL PASO INTL AIRPORT
FIELD ELEV. 3956′ MSL


25 NM
R-5107A
R-5103
V19
V94
10
MOLLY
V19-94
15 NM
Anthony
Power Plant
Newman
EWM
V94S
V94N
WHOLE
V280
NORTH OF V16
CONTACT APPROACH
CONTROL
118.7 307.0
Mt. Franklin
Biggs AAF
Hueco Tanks
V280
V94
V16N
V66N
HANCH
V16-66-198
EL PASO
INTL
ELP
R
Hueco
62
180
RIOWE
V16-222
VIRGO
EL
PASO
Stacks
V280
YSLETA
CUT-OFF HWY
TYLAN
Hueco Mtns
V66-198
FABAN
Horizon City
West Texas
Ysleta
Ciudad
Juarez Intl
CJS
10 NM
6 MILES
TO MEXICO
SOUTH OF V16
CONTACT APPROACH
CONTROL
119.7 353.5
15 NM
10
Fabens
USA
MEXICO
25 NM

SMOKE STACKS	8W
ANTHONY	16NW
POWER PLANT	11NW
HUECO MOUNTAINS	19E
HUECO TANKS	19NE
FABENS (VILLAGE)	21SE
YSLETA (VILLAGE) AND CUT-OFF	8SE
JUAREZ AIRPORT	9S
HORIZON CITY	11SE
NEWMAN	12N

LEGEND

⁙	6000′ TO 10,000′ MSL
░	6500′ TO 10,000′ MSL
▨	SURFACE TO 10,000′ MSL
⬅	SUGGESTED VFR ROUTES RUNWAYS 22, 26, 17, IN USE
⇦	SUGGESTED VFR ROUTES RUNWAYS 4, 8, 35, IN USE

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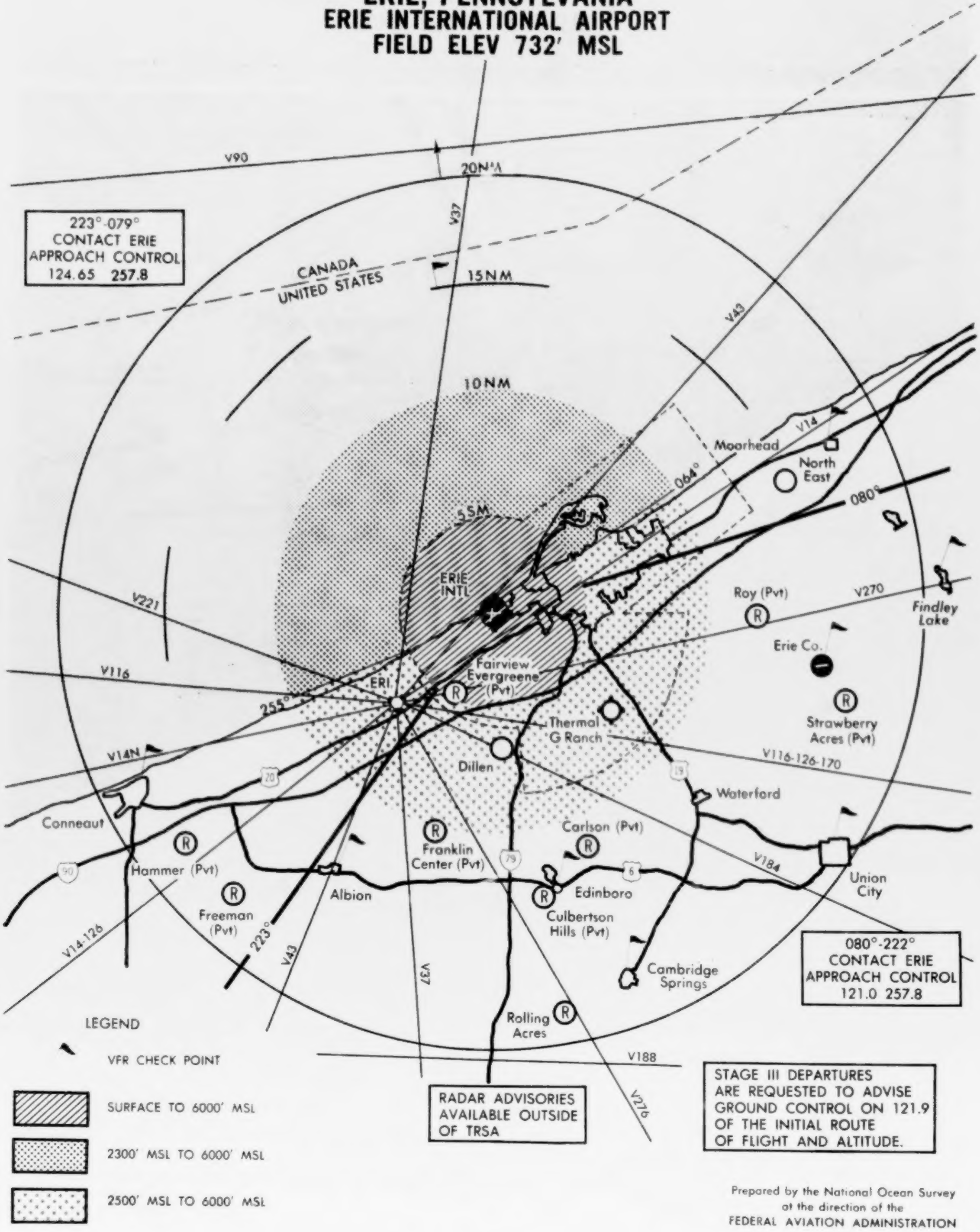
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ERIE, PENNSYLVANIA
ERIE INTERNATIONAL AIRPORT
FIELD ELEV 732′ MSL


V90
20NM
V37
CANADA
UNITED STATES
15NM
V43
10NM
5SM
064°
080°
V14
Moorhead
North East
ERIE INTL
Roy (Pvt)
V270
Findley Lake
Erie Co.
Strawberry Acres (Pvt)
V221
V116
ERI
255°
Fairview Evergreene (Pvt)
Thermal G Ranch
V116-126-170
V14N
20
Dillen
19
Waterford
Conneaut
Carlson (Pvt)
Franklin Center (Pvt)
Hammer (Pvt)
90
79
6
V184
Union City
Albion
Edinboro
Freeman (Pvt)
Culbertson Hills (Pvt)
V14-126
223°
V43
V37
Cambridge Springs
Rolling Acres
V188
V276

223°-079°
CONTACT ERIE
APPROACH CONTROL
124.65 257.8

080°-222°
CONTACT ERIE
APPROACH CONTROL
121.0 257.8

RADAR ADVISORIES
AVAILABLE OUTSIDE
OF TRSA

STAGE III DEPARTURES
ARE REQUESTED TO ADVISE
GROUND CONTROL ON 121.9
OF THE INITIAL ROUTE
OF FLIGHT AND ALTITUDE.

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 6000′ MSL
- ▩ 2300′ MSL TO 6000′ MSL
- ░ 2500′ MSL TO 6000′ MSL

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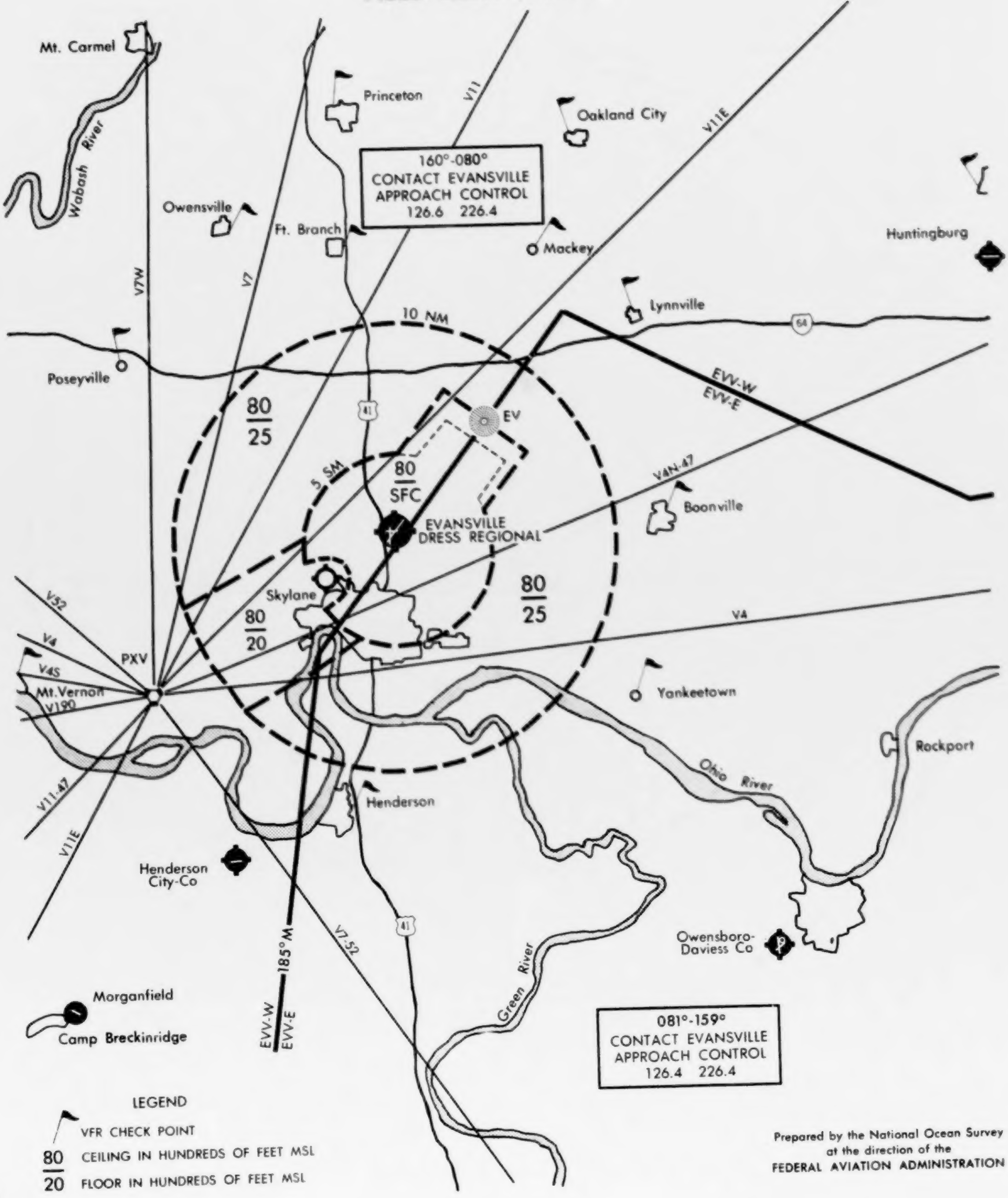
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

EVANSVILLE, INDIANA
EVANSVILLE DRESS REGIONAL AIRPORT
FIELD ELEV. 418' MSL


Mt. Carmel
Wabash River
Princeton
V11
Oakland City
V11E
160°-080°
CONTACT EVANSVILLE
APPROACH CONTROL
126.6 226.4
Owensville
Ft. Branch
Mackey
Huntingburg
V7W
V7
Lynnville
10 NM
64
Poseyville
EVV-W
EVV-E
41
80
25
EV
5 SM
80
SFC
V4N-47
Boonville
EVANSVILLE
DRESS REGIONAL
Skylane
80
25
80
20
V52
V4
PXV
V4S
Mt.Vernon
V190
V4
Yankeetown
Rockport
Ohio River
V11-47
Henderson
V11E
Henderson
City-Co
41
V7-52
185°M
Owensboro-
Daviess Co
Green River
Morganfield
Camp Breckinridge
EVV-W
EVV-E
081°-159°
CONTACT EVANSVILLE
APPROACH CONTROL
126.4 226.4
LEGEND
VFR CHECK POINT
80 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

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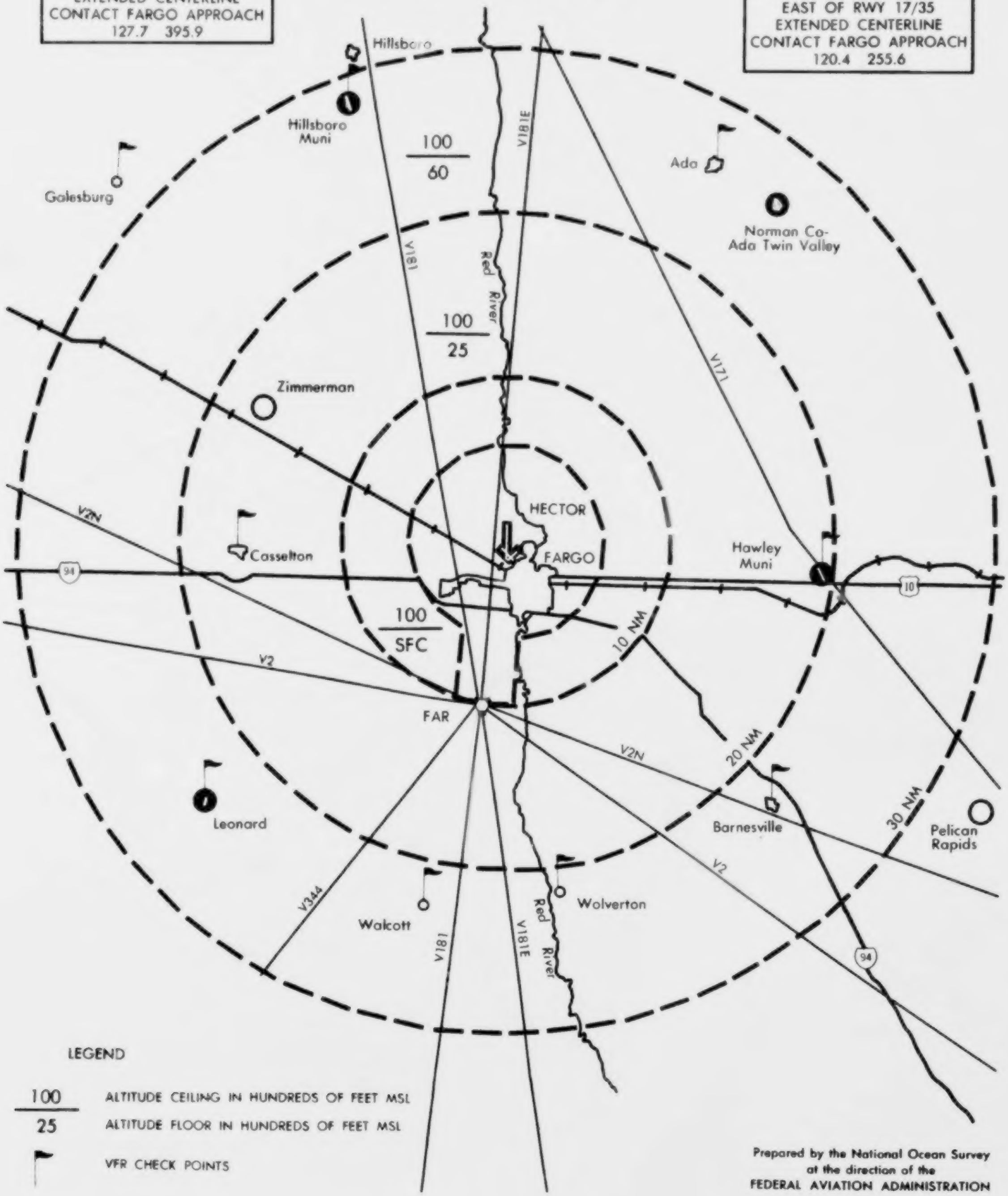
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FARGO, NORTH DAKOTA
HECTOR AIRPORT
FIELD ELEV 900' MSL

WEST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
127.7 395.9

EAST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
120.4 255.6


Hillsboro
Hillsboro Muni
Galesburg
100
60
V181E
Ada
Norman Co-Ada Twin Valley
V181
Red River
100
25
V171
Zimmerman
HECTOR
FARGO
V2N
Casselton
94
Hawley Muni
10
100
SFC
10 NM
V2
FAR
V2N
20 NM
Barnesville
30 NM
Pelican Rapids
Leonard
V2
V344
Walcott
V181
V181E
Red River
Wolverton
94

LEGEND

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
25 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

VFR CHECK POINTS

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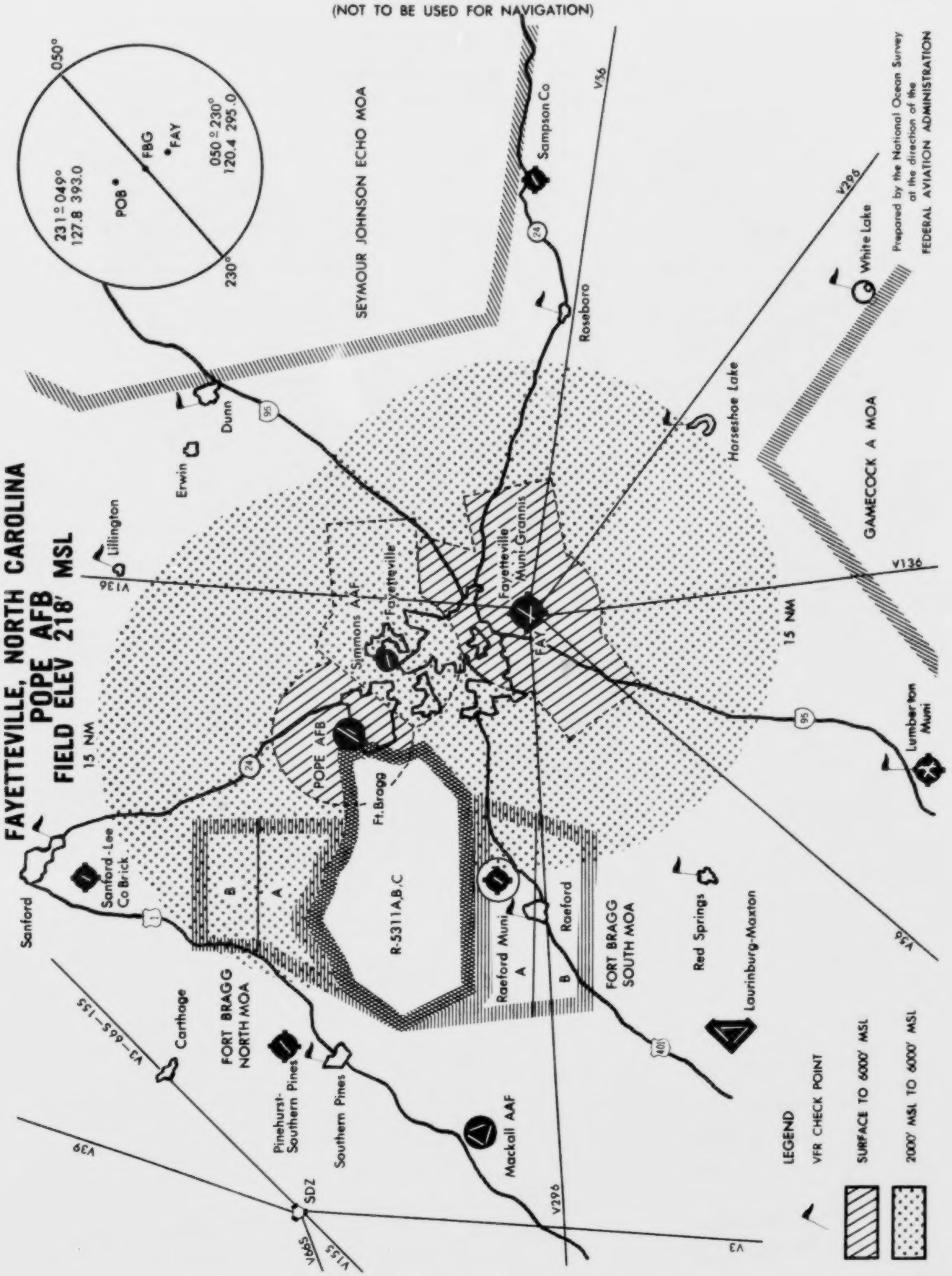
FEDERAL AVIATION ADMINISTRATION

4 OCT 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)


FAYETTEVILLE, NORTH CAROLINA
POPE AFB
FIELD ELEV 218' MSL
231° 049°
127.8 393.0
050° 230°
120.4 295.0
050°
230°
FBG
FAY
POB
SEYMOUR JOHNSON ECHO MOA
GAMECOCK A MOA
FORT BRAGG NORTH MOA
FORT BRAGG SOUTH MOA
R-5311A,B,C
A
B
Sanford
Sanford-Lee Co Brick
Lillington
Erwin
Dunn
Sampson Co
Roseboro
Harseshoe Lake
White Lake
Lumberton Muni
Red Springs
Laurinburg-Maxton
Raeford
Raeford Muni
Fayetteville
Fayetteville Muni-Grannis
FAY
Simmons AAF
POPE AFB
Ft. Bragg
Carthage
Pinehurst-Southern Pines
Southern Pines
Mackall AAF
SDZ
15 NM
15 NM
V136
V56
V296
V3
V39
V3-66S-155
V66S
V155
24
95
1
401
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL
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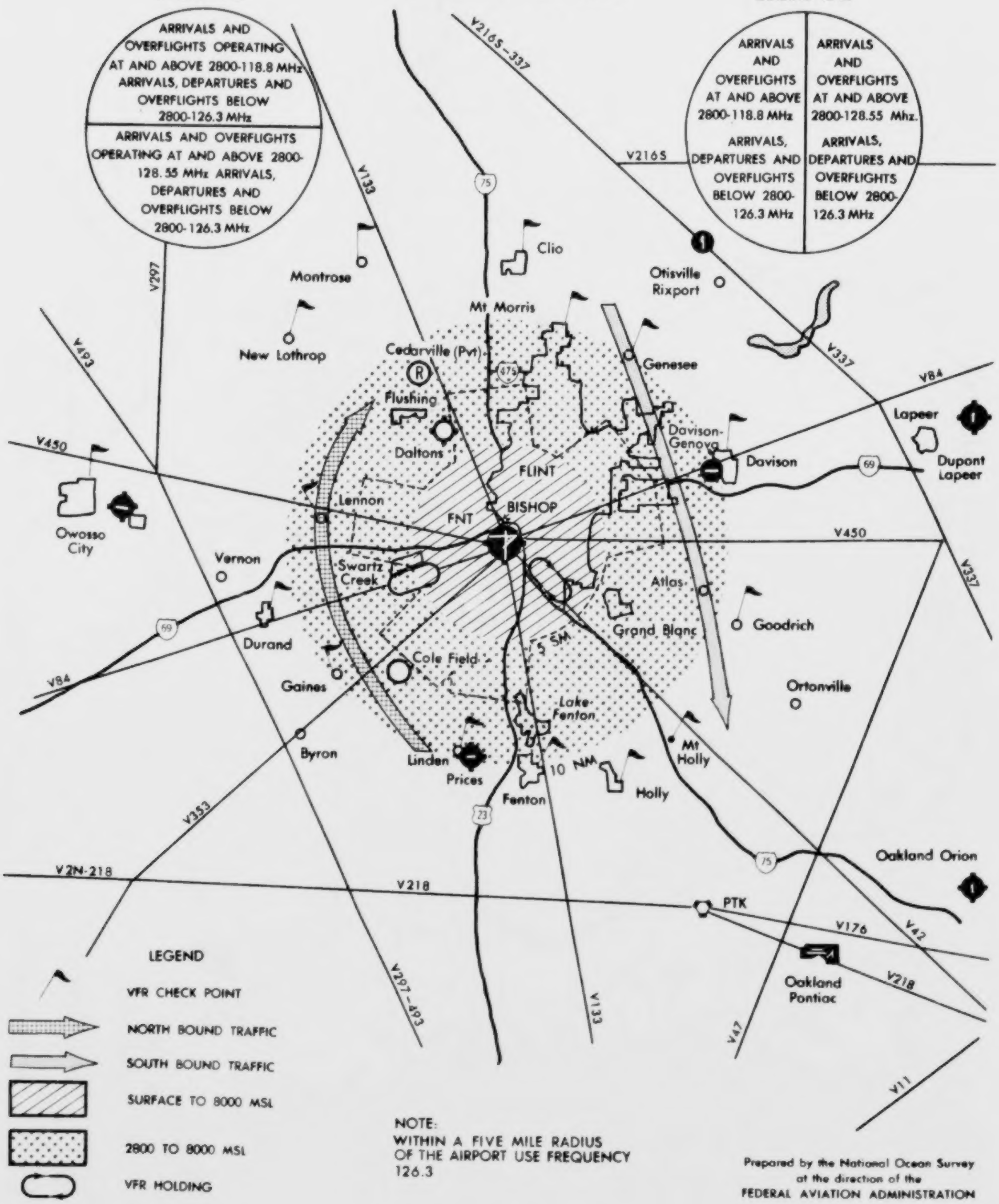
19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FLINT, MICHIGAN
FLINT BISHOP AIRPORT
FIELD ELEV 782' MSL


LANDING 9-27
ARRIVALS AND OVERFLIGHTS OPERATING AT AND ABOVE 2800-118.8 MHz ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
ARRIVALS AND OVERFLIGHTS OPERATING AT AND ABOVE 2800-128.55 MHz ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
LANDING 18-36
ARRIVALS AND OVERFLIGHTS AT AND ABOVE 2800-118.8 MHz
ARRIVALS AND OVERFLIGHTS AT AND ABOVE 2800-128.55 Mhz.
ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
ARRIVALS, DEPARTURES AND OVERFLIGHTS BELOW 2800-126.3 MHz
V216S-337
V216S
V133
75
V297
Clio
Montrose
Otisville Rixport
Mt Morris
New Lothrop
V493
Cedarville (Pvt)
R
478
Genesee
V337
V84
Flushing
Lapeer
Daltons
Davison-Genova
V450
Davison
69
Dupont Lapeer
FLINT
Owosso City
Lennon
FNT
BISHOP
V450
Vernon
Swartz Creek
Atlas
V337
69
Durand
5 SM
Grand Blanc
Goodrich
Cole Field
V84
Gaines
Lake Fenton
Ortonville
Byron
Linden
Prices
10 NM
Mt Holly
Holly
Fenton
23
V353
75
Oakland Orion
V2N-218
V218
PTK
V176
V42
V218
Oakland Pontiac
V297-493
V133
V47
V11
LEGEND
VFR CHECK POINT
NORTH BOUND TRAFFIC
SOUTH BOUND TRAFFIC
SURFACE TO 8000 MSL
2800 TO 8000 MSL
VFR HOLDING

NOTE:
WITHIN A FIVE MILE RADIUS OF THE AIRPORT USE FREQUENCY 126.3

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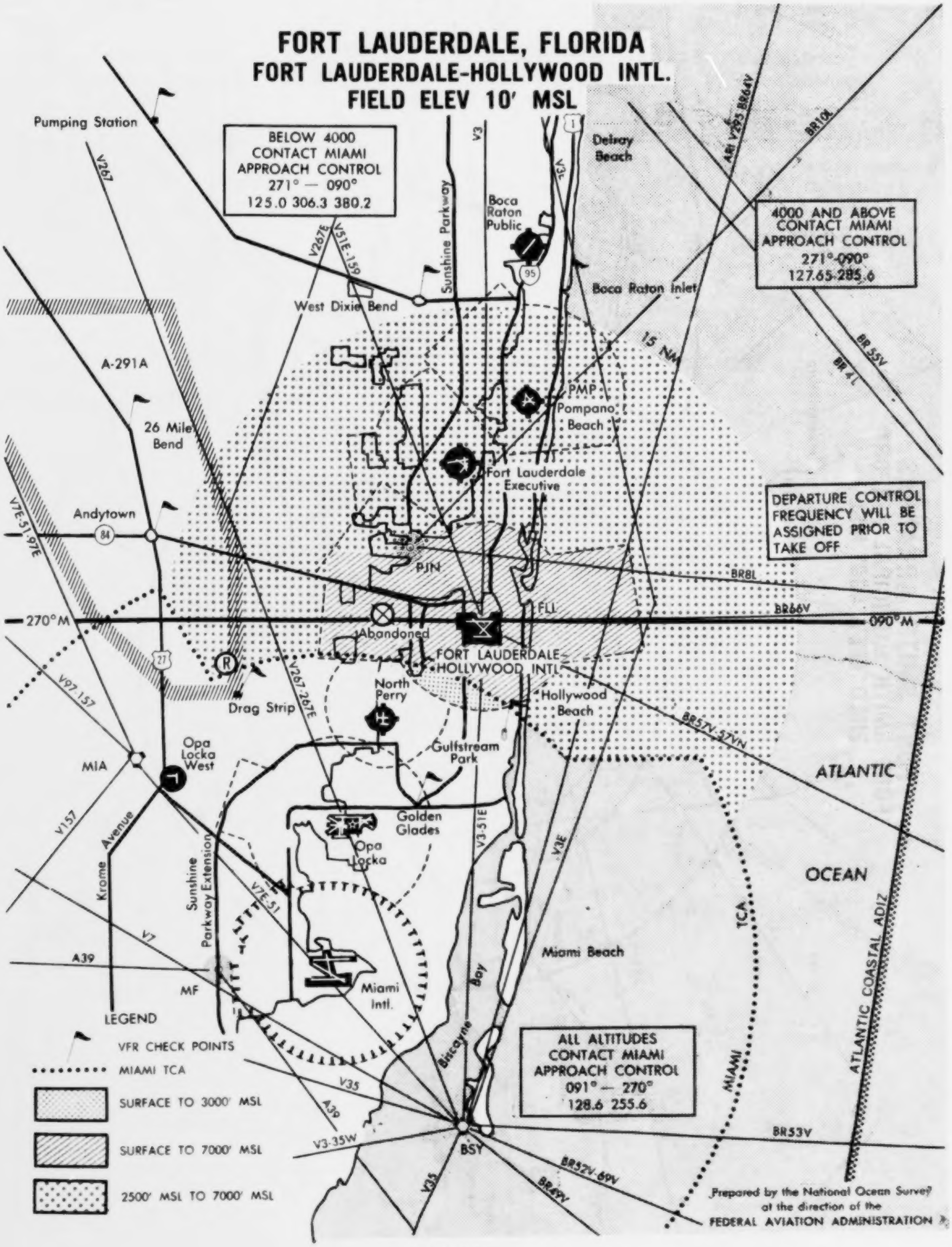
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)



FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE-HOLLYWOOD INTL.
FIELD ELEV 10′ MSL

BELOW 4000
CONTACT MIAMI
APPROACH CONTROL
271° — 090°
125.0 306.3 380.2

4000 AND ABOVE
CONTACT MIAMI
APPROACH CONTROL
271°-090°
127.65 285.6

DEPARTURE CONTROL
FREQUENCY WILL BE
ASSIGNED PRIOR TO
TAKE OFF

ALL ALTITUDES
CONTACT MIAMI
APPROACH CONTROL
091° — 270°
128.6 255.6

LEGEND

- VFR CHECK POINTS
- MIAMI TCA
- SURFACE TO 3000′ MSL
- SURFACE TO 7000′ MSL
- 2500′ MSL TO 7000′ MSL

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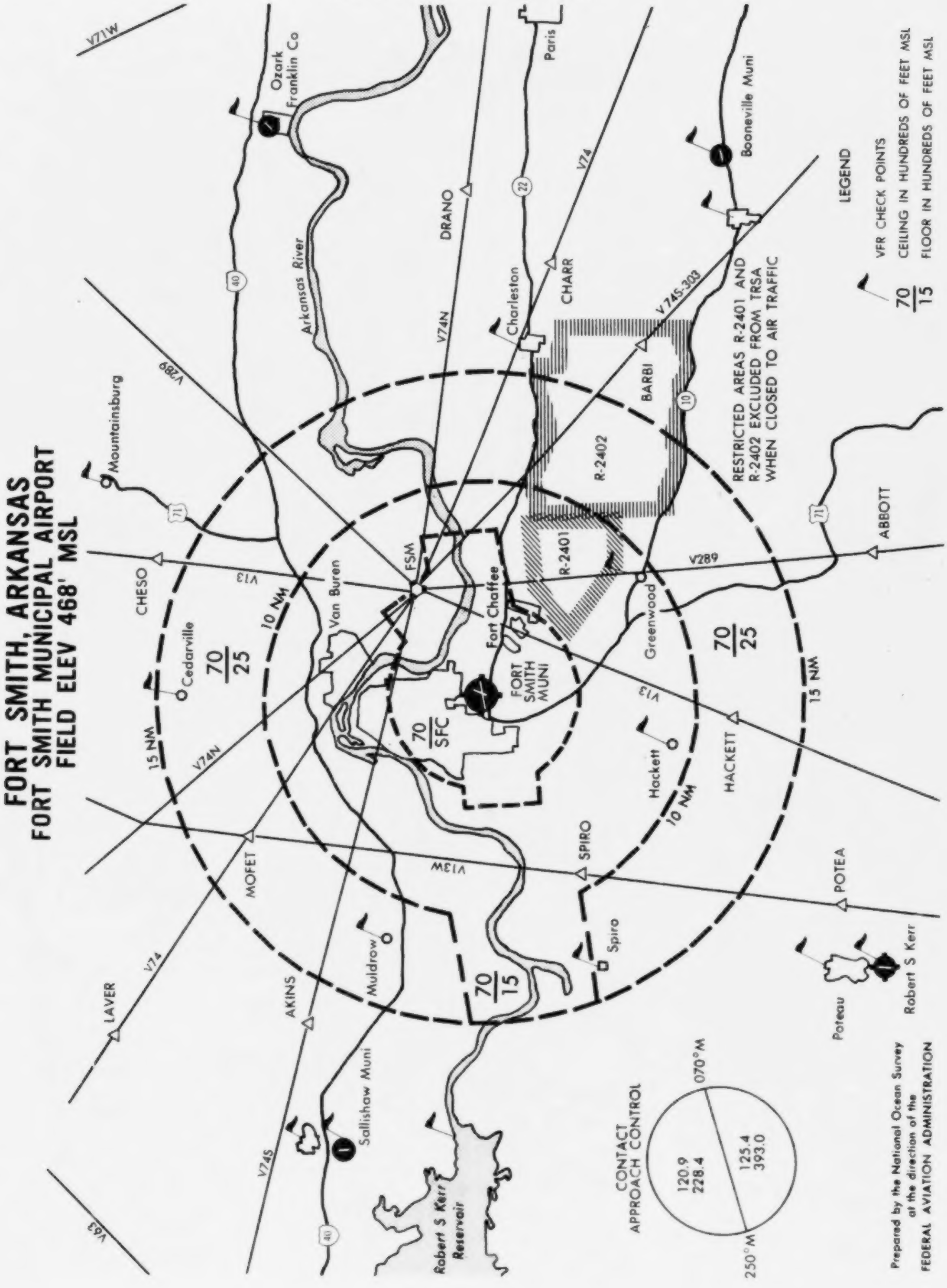
Pumping Station
V267
V267E
V51E-159
Sunshine Parkway
V3
1
V3E
Delray Beach
ARI V295 BR64V
BR10L
Boca Raton Public
95
Boca Raton Inlet
West Dixie Bend
15 NM
BR 55V
BR 4L
A-291A
PMP
Pompano Beach
26 Mile Bend
Fort Lauderdale Executive
V7E-51-97E
Andytown
84
PJN
BR8L
270°M
FLL
BR66V
090°M
Abandoned
27
R
FORT LAUDERDALE-HOLLYWOOD INTL
V97-157
Drag Strip
V267-267E
North Perry
Hollywood Beach
BR57V-57VN
Gulfstream Park
ATLANTIC
MIA
Opa Locka West
V157
Krome Avenue
Golden Glades
Opa Locka
V3-51E
V3E
Sunshine Parkway Extension
OCEAN
V7E-51
V7
TCA
ATLANTIC COASTAL ADIZ
A39
MF
Miami Intl.
Miami Beach
Biscayne Bay
MIAMI
V35
A39
V3-35W
BSY
BR53V
BR52V-69V
BR49V
V35

9 AUG 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



FORT SMITH, ARKANSAS
FORT SMITH MUNICIPAL AIRPORT
FIELD ELEV 468' MSL

RESTRICTED AREAS R-2401 AND R-2402 EXCLUDED FROM TRSA WHEN CLOSED TO AIR TRAFFIC

LEGEND

- VFR CHECK POINTS
- 70 CEILING IN HUNDREDS OF FEET MSL
- 15 FLOOR IN HUNDREDS OF FEET MSL

CONTACT APPROACH CONTROL

070°M

250°M

120.9
228.4

125.4
393.0

V71W
Ozark Franklin Co
Paris
Booneville Muni
Arkansas River
40
DRANO
22
V74
Charleston
CHARR
V74N
V74S-303
V289
Mountainsburg
BARBI
R-2402
R-2401
10
71
ABBOTT
CHESO
V13
10 NM
Van Buren
FSM
Fort Chaffee
V289
Greenwood
Cedarville
70/25
FORT SMITH MUNI
70/SFC
15 NM
V74N
Hackett
HACKETT
15 NM
SPIRO
MOFET
V13W
POTEA
Muldrow
Spiro
70/15
LAVER
V74
AKINS
Poteau
Robert S Kerr
Sallishaw Muni
V74S
40
Robert S Kerr Reservoir
V63

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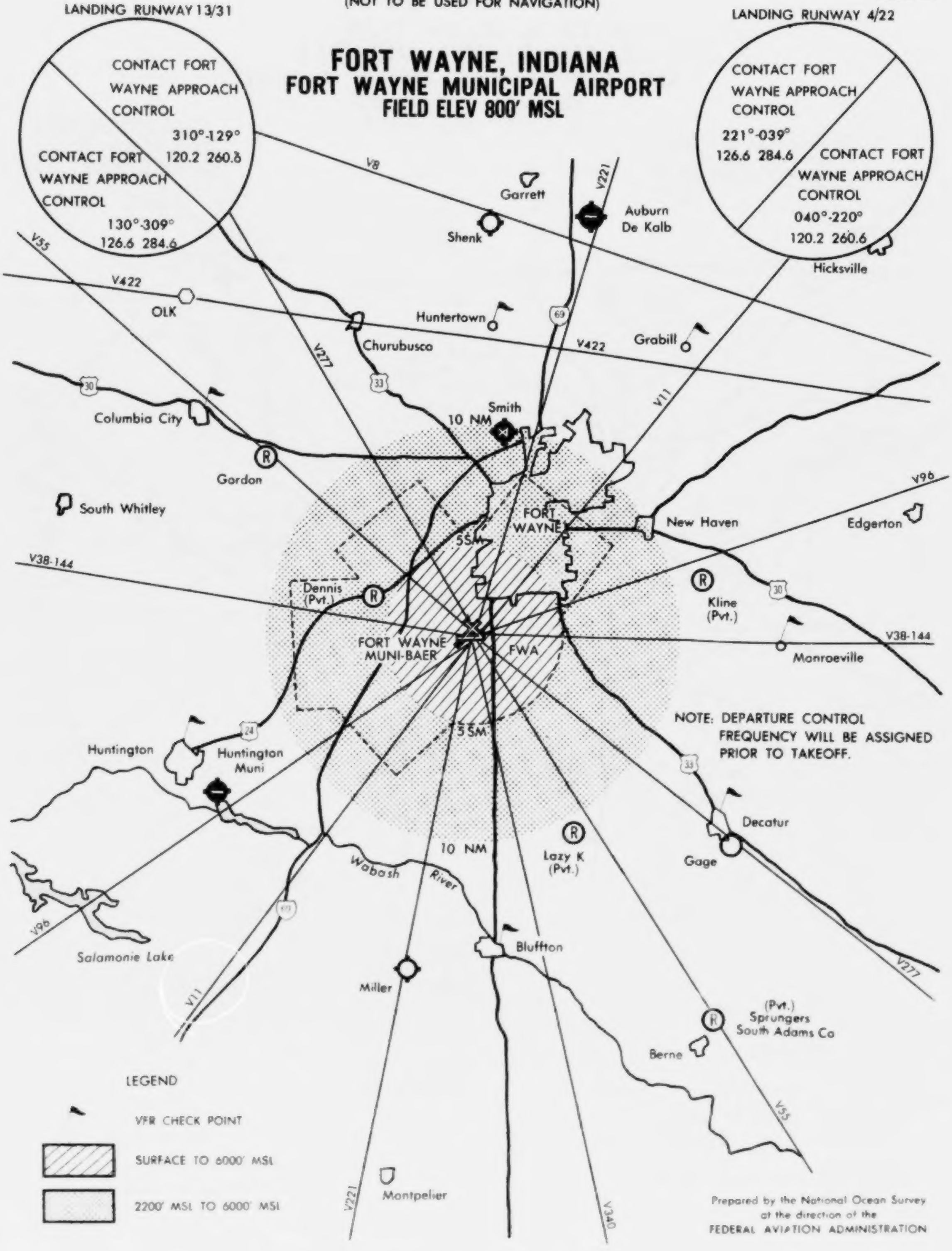
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FORT WAYNE, INDIANA
FORT WAYNE MUNICIPAL AIRPORT
FIELD ELEV 800' MSL


LANDING RUNWAY 13/31
CONTACT FORT WAYNE APPROACH CONTROL
310°-129°
120.2 260.6
CONTACT FORT WAYNE APPROACH CONTROL
130°-309°
126.6 284.6
LANDING RUNWAY 4/22
CONTACT FORT WAYNE APPROACH CONTROL
221°-039°
126.6 284.6
CONTACT FORT WAYNE APPROACH CONTROL
040°-220°
120.2 260.6
V8
V221
Garrett
Auburn De Kalb
Shenk
Hicksville
V55
V422
OLK
Huntertown
Churubusco
Grabill
V422
V277
69
V11
30
33
Columbia City
Smith
10 NM
Gordon
South Whitley
FORT WAYNE
5SM
New Haven
V96
Edgerton
V38-144
Dennis (Pvt.)
Kline (Pvt.)
30
FORT WAYNE MUNI-BAER
FWA
V38-144
Monroeville
NOTE: DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKEOFF.
5SM
24
Huntington
Huntington Muni
33
Decatur
Gage
10 NM
Lazy K (Pvt.)
Wabash River
V96
Salamonie Lake
Bluffton
V277
V11
Miller
(Pvt.) Sprungers South Adams Co
Berne
V55
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2200' MSL TO 6000' MSL
V221
Montpelier
V340

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FEDERAL AVIATION ADMINISTRATION

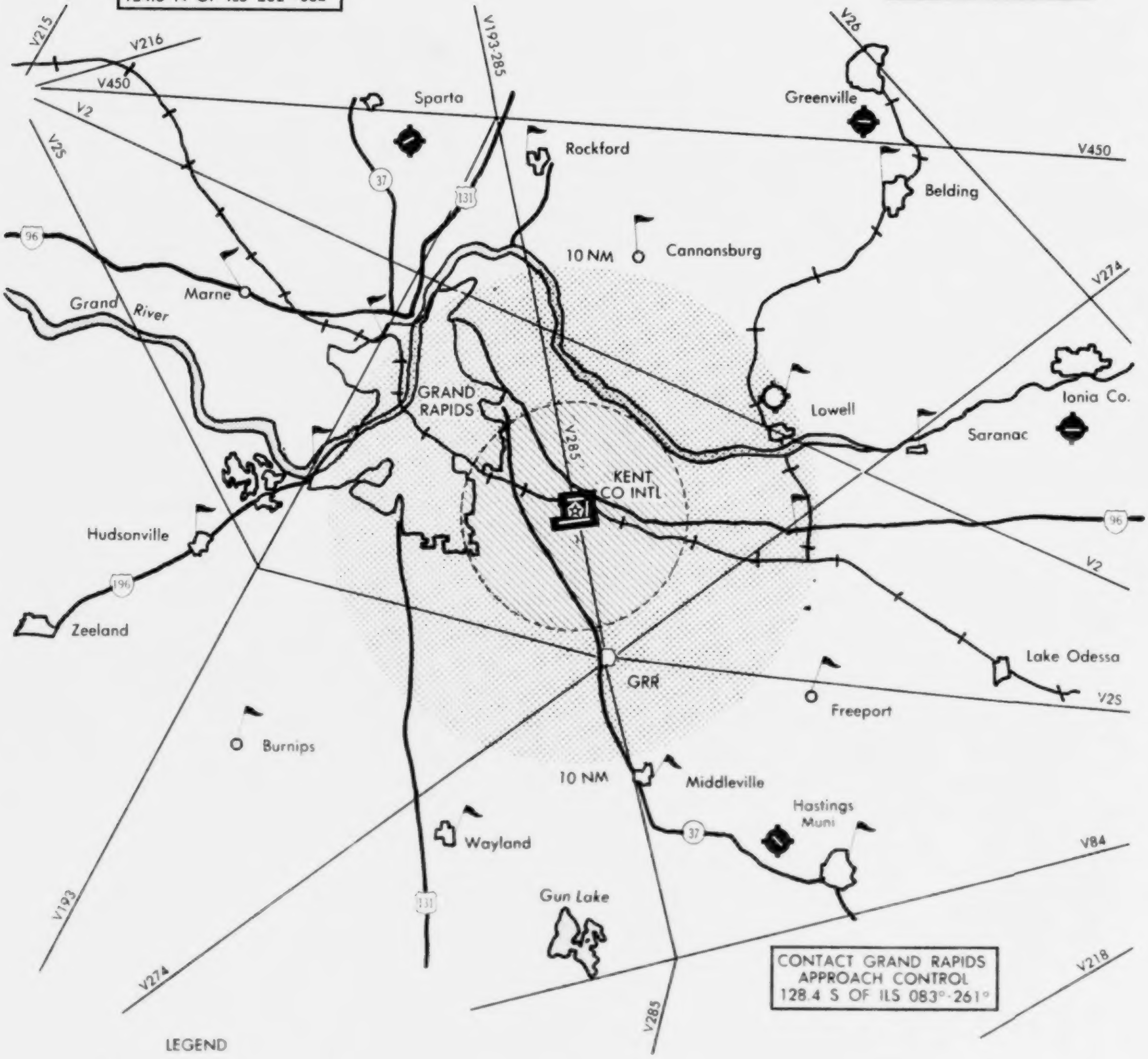
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GRAND RAPIDS, MICHIGAN
KENT COUNTY INTERNATIONAL AIRPORT
FIELD ELEV 794' MSL

CONTACT GRAND RAPIDS
APPROACH CONTROL
124.6 N OF ILS 262°-082°

DEPARTURE FREQUENCY
WILL BE ASSIGNED BY
GROUND CONTROL


V215
V216
V450
V2
V25
V193-285
V26
Sparta
Greenville
Rockford
Belding
V450
37
131
96
10 NM
Cannonsburg
Marne
Grand River
V274
GRAND RAPIDS
Lowell
Ionia Co.
Saranac
V285
KENT CO INTL
96
V2
Hudsonville
196
Zeeland
GRR
Lake Odessa
V25
Freeport
Burnips
10 NM
Middleville
Hastings Muni
37
Wayland
V84
131
Gun Lake
V193
V274
V285
V218

CONTACT GRAND RAPIDS
APPROACH CONTROL
128.4 S OF ILS 083°-261°

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE
- ░ 2500' MSL TO 6000' MSL

ATIS 118.85 MHz

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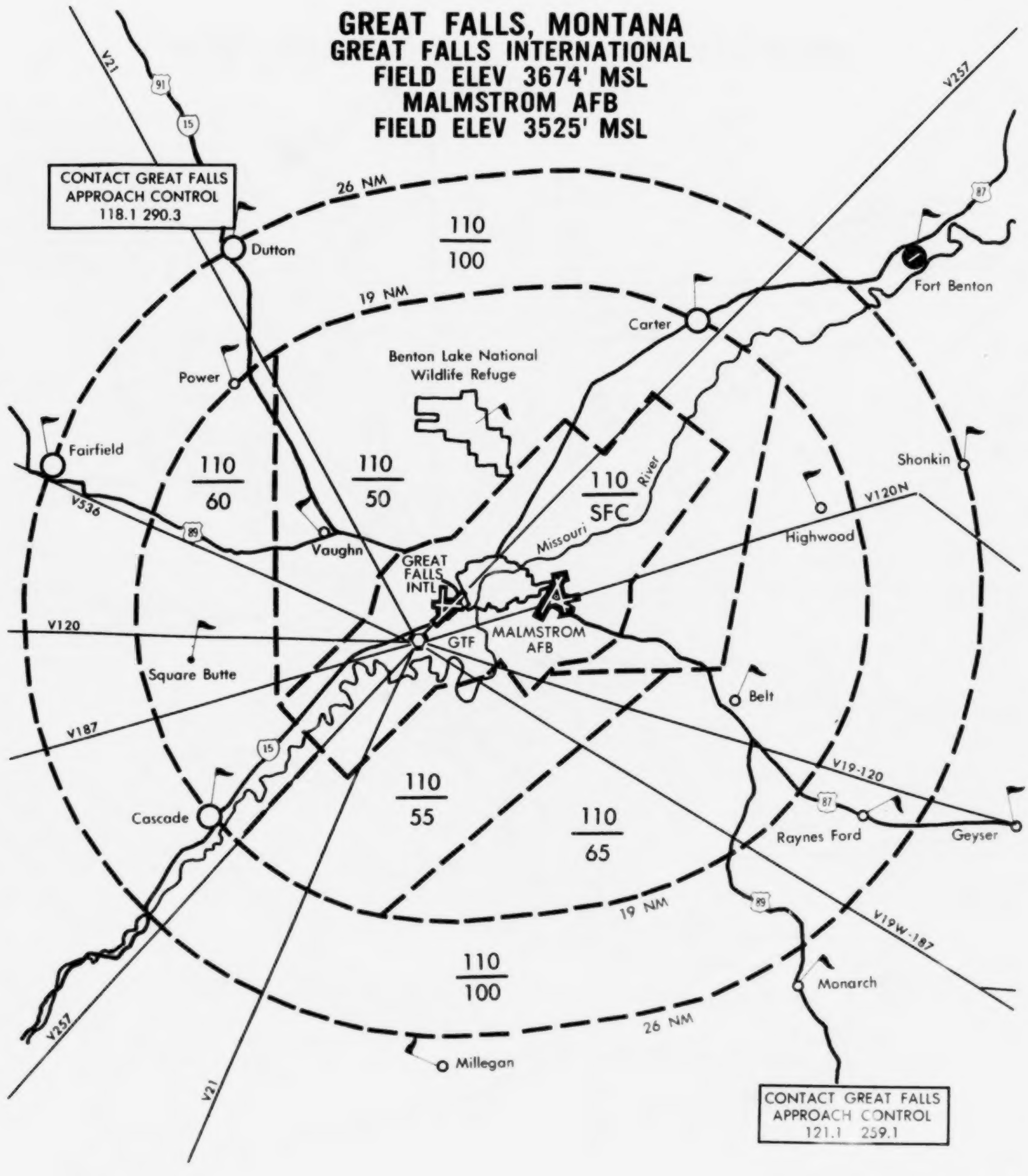
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREAT FALLS, MONTANA
GREAT FALLS INTERNATIONAL
FIELD ELEV 3674' MSL
MALMSTROM AFB
FIELD ELEV 3525' MSL


CONTACT GREAT FALLS APPROACH CONTROL 118.1 290.3
V21
91
15
26 NM
110/100
Dutton
19 NM
Carter
V257
87
Fort Benton
Benton Lake National Wildlife Refuge
Power
Fairfield
110/60
110/50
110/SFC
Missouri River
Shonkin
V536
89
Vaughn
Highwood
V120N
GREAT FALLS INTL
MALMSTROM AFB
V120
GTF
Square Butte
Belt
V187
15
V19-120
Cascade
110/55
110/65
87
Raynes Ford
Geyser
19 NM
89
V19W-187
110/100
Monarch
V257
26 NM
Millegan
V21
CONTACT GREAT FALLS APPROACH CONTROL 121.1 259.1
V113

LEGEND

VFR CHECKPOINT

110	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
55	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
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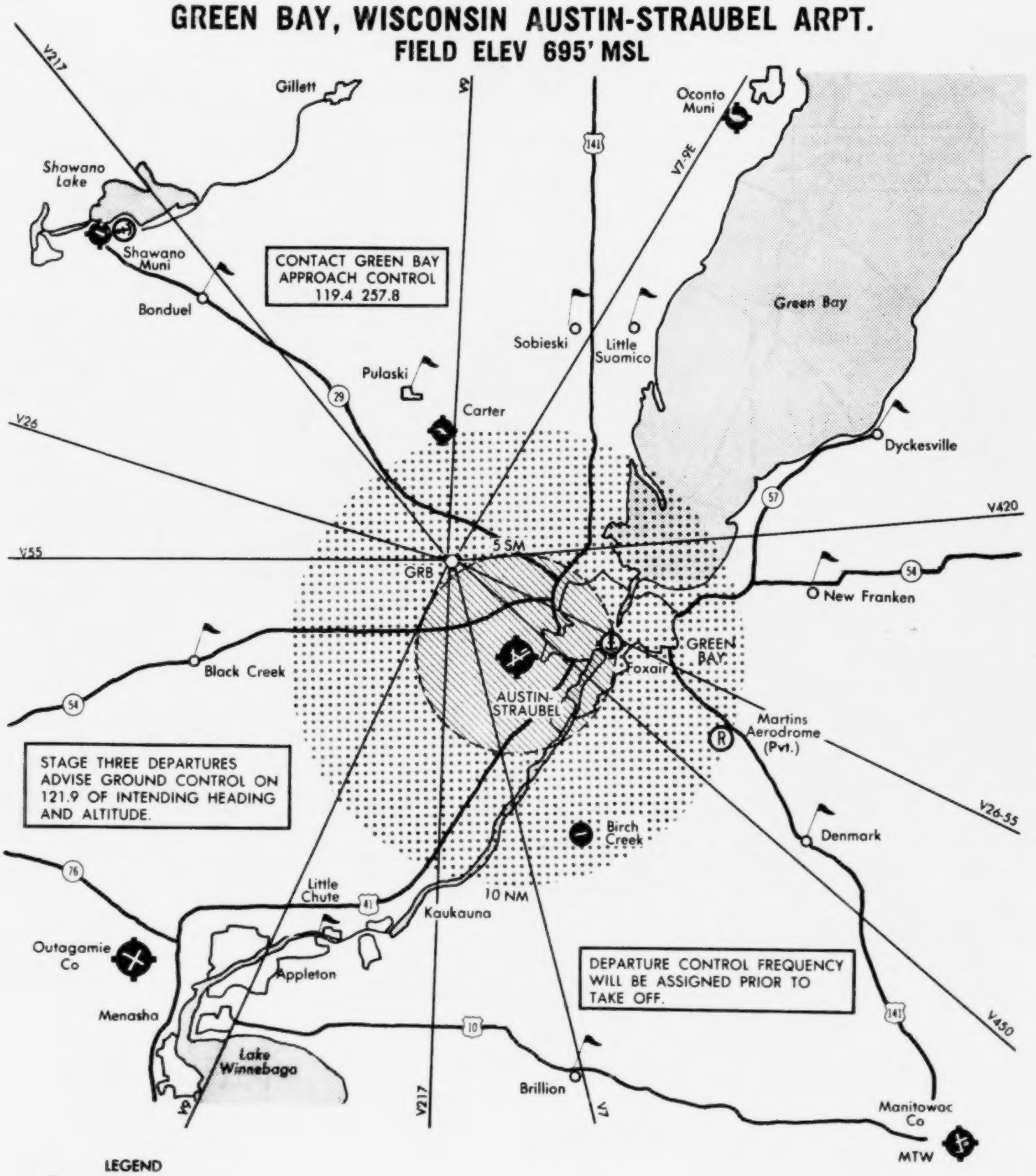
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREEN BAY, WISCONSIN AUSTIN-STRAUBEL ARPT.
FIELD ELEV 695' MSL


V217
V9
141
Gillett
Oconto
Muni
V7-9E
Shawano
Lake
Shawano
Muni
Bonduel
Green Bay
Sobieski
Little
Suamico
Pulaski
29
Carter
Dyckesville
V26
57
V420
5 SM
V55
GRB
54
New Franken
GREEN
BAY
Foxair
Black Creek
54
AUSTIN-
STRAUBEL
Martins
Aerodrome
(Pvt.)
R
V26-55
Denmark
Birch
Creek
76
Little
Chute
41
10 NM
Kaukauna
Outagamie
Co
Appleton
Menasha
10
141
V450
Lake
Winnebago
Brillion
V9
V217
V7
Manitowoc
Co
MTW

CONTACT GREEN BAY APPROACH CONTROL 119.4 257.8

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDING HEADING AND ALTITUDE.

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF.

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE

⠿ 2500' TO 6000' MSL

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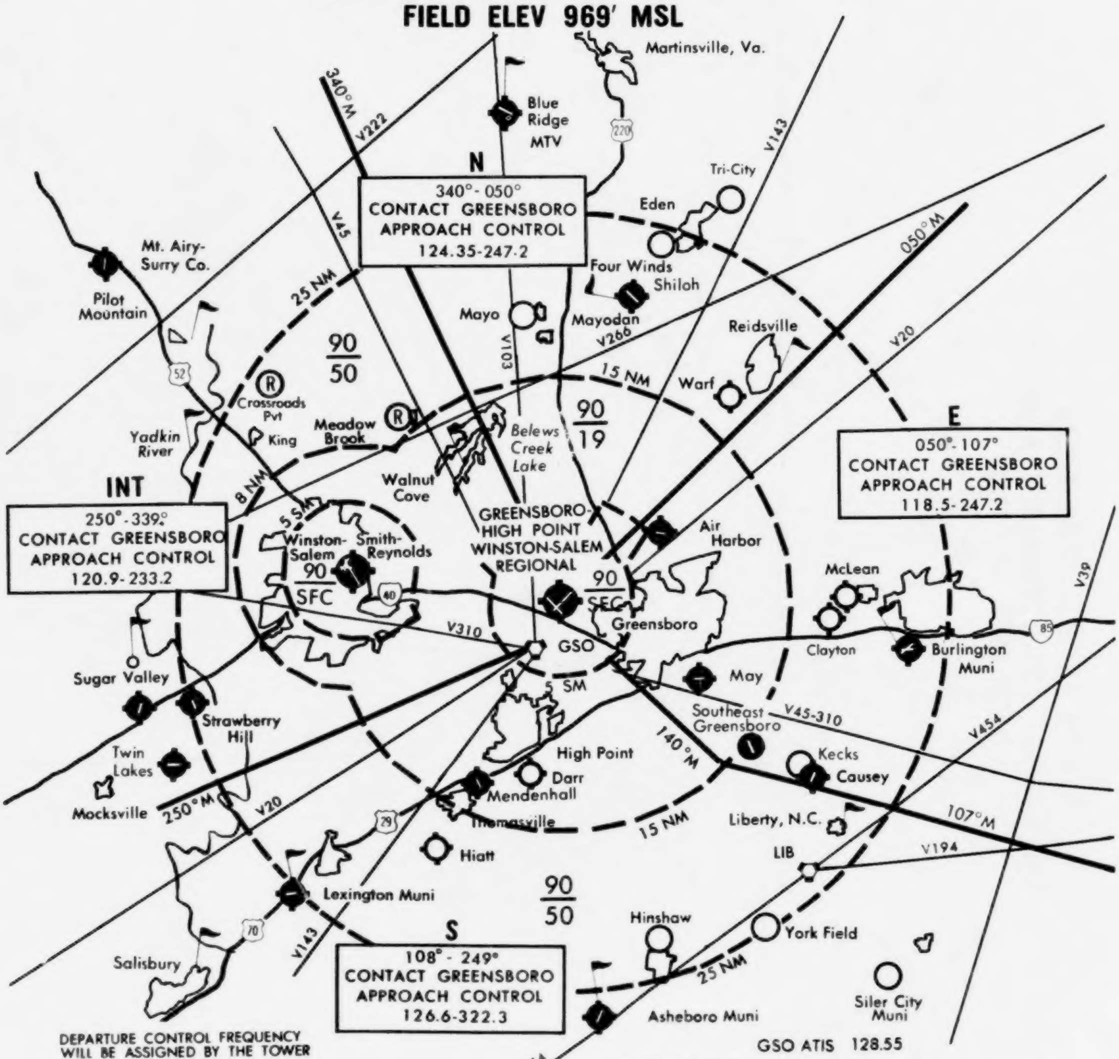
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREENSBORO-HIGH POINT-WINSTON SALEM REGIONAL FIELD ELEV. 926′ MSL AND SMITH REYNOLDS ARPTS FIELD ELEV 969′ MSL


Martinsville, Va.
Blue Ridge MTV
220
V143
Tri-City
Eden
340° M
V222
N
340°- 050° CONTACT GREENSBORO APPROACH CONTROL 124.35-247.2
V45
Mt. Airy-Surry Co.
Pilot Mountain
25 NM
Four Winds
Shiloh
050° M
Mayo
Mayodan
V266
Reidsville
V20
90/50
52
V103
15 NM
Warf
Crossroads Pvt
Meadow Brook
90/19
Belews Creek Lake
E
050°- 107° CONTACT GREENSBORO APPROACH CONTROL 118.5-247.2
Yadkin River
King
8 NM
Walnut Cove
INT
250°- 339° CONTACT GREENSBORO APPROACH CONTROL 120.9-233.2
5 SM
Winston-Salem
Smith-Reynolds
90/SFC
40
GREENSBORO-HIGH POINT WINSTON-SALEM REGIONAL
Air Harbor
90/SFC
McLean
V39
Greensboro
V310
GSO
Clayton
85
Burlington Muni
Sugar Valley
5 SM
May
Strawberry Hill
Southeast Greensboro
V45-310
V454
Twin Lakes
140° M
High Point
Kecks
Causey
Darr
Mendenhall
Mocksville
250° M
V20
107° M
29
Thomasville
15 NM
Liberty, N.C.
V194
LIB
Hiatt
Lexington Muni
90/50
S
Hinshaw
York Field
70
V143
108°- 249° CONTACT GREENSBORO APPROACH CONTROL 126.6-322.3
25 NM
Salisbury
Asheboro Muni
Siler City Muni
V454

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BY THE TOWER

GSO ATIS 128.55

MARTINSVILLE BLUE RIDGE AIRPORT	N	35NM
SHILOH AIRPORT	NE	25NM
REIDSVILLE	NE	20NM
BELEWS CREEK LAKE	N	14NM
BURLINGTON AIRPORT	E	25NM
SOUTHEAST GREENSBORO AIRPORT	SE	15NM
LIBERTY	SE	23NM
ASHEBORO AIRPORT	S	26NM
LEXINGTON AIRPORT	SW	25NM
SALISBURY	SW	30NM
TWIN LAKES AIRPORT	SW	27NM
YADKIN RIVER	W	25NM
PILOT MOUNTAIN	NW	32NM

LEGEND

⚑	VFR CHECK POINT
90	CEILING IN HUNDREDS OF FEET MSL
50	FLOOR IN HUNDREDS OF FEET MSL

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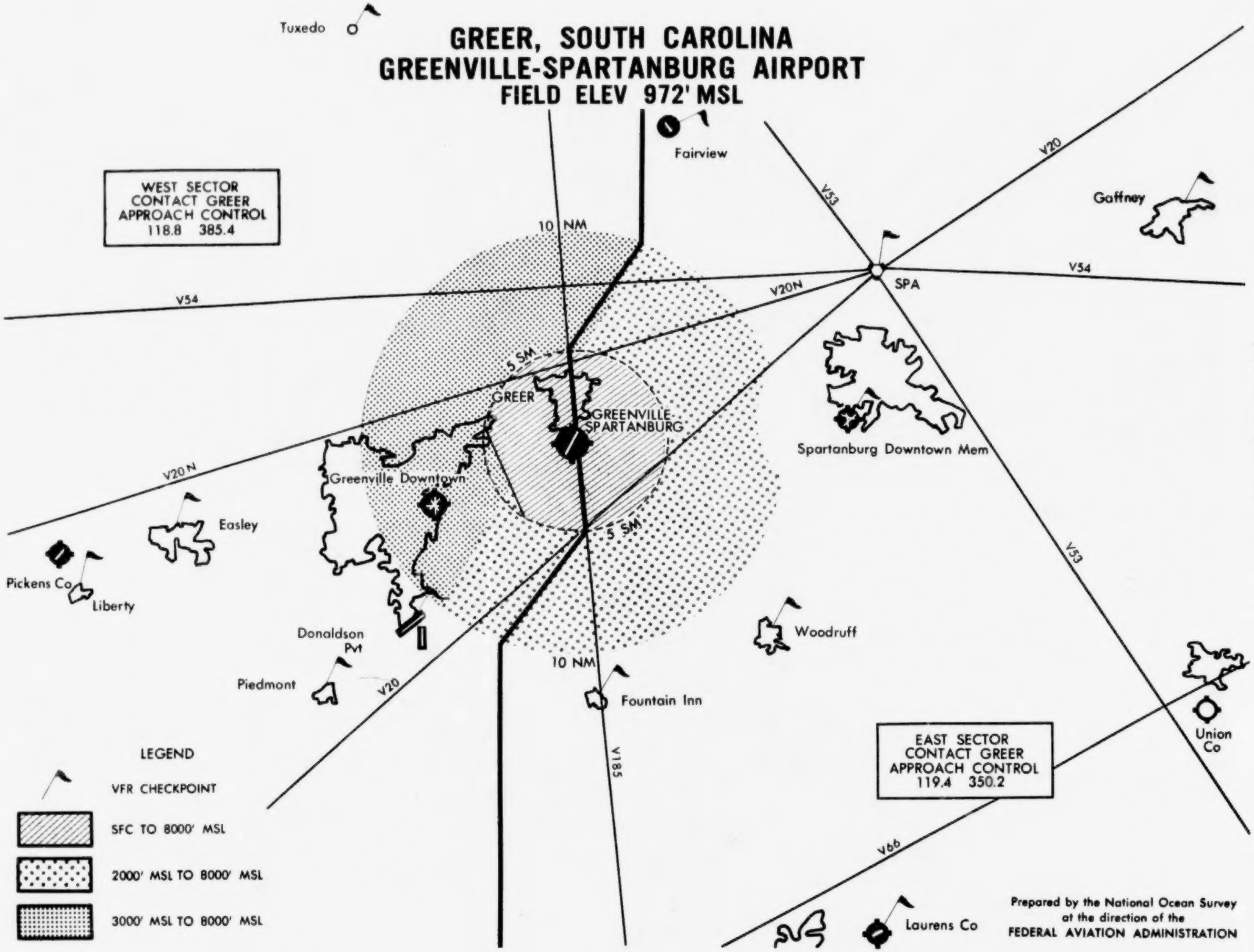
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREER, SOUTH CAROLINA
GREENVILLE-SPARTANBURG AIRPORT
FIELD ELEV 972' MSL


Tuxedo
Fairview
Gaffney
SPA
V20
V53
V54
V20N
10 NM
5 SM
GREER
GREENVILLE-SPARTANBURG
Spartanburg Downtown Mem
Greenville Downtown
Easley
Pickens Co
Liberty
Donaldson Pvt
Piedmont
V20
Woodruff
Fountain Inn
V185
Union Co
V66
Laurens Co

WEST SECTOR
CONTACT GREER
APPROACH CONTROL
118.8 385.4

EAST SECTOR
CONTACT GREER
APPROACH CONTROL
119.4 350.2

LEGEND

⚑	VFR CHECKPOINT
▨	SFC TO 8000' MSL
░	2000' MSL TO 8000' MSL
▒	3000' MSL TO 8000' MSL

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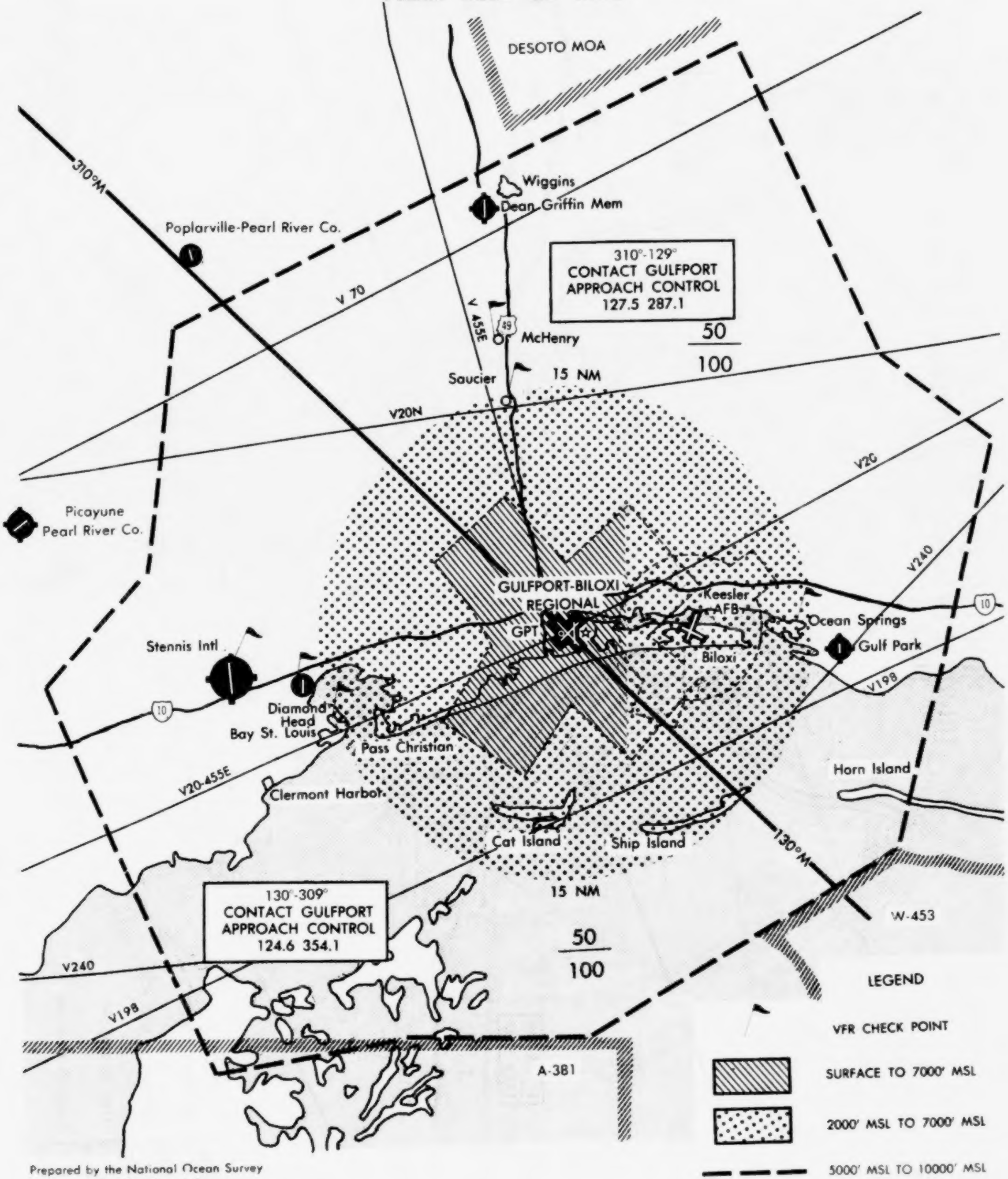
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GULFPORT, MISSISSIPPI
GULFPORT-BILOXI REGIONAL
FIELD ELEV 28' MSL


DESOTO MOA
310°M
Wiggins
Dean Griffin Mem
Poplarville-Pearl River Co.
310°-129°
CONTACT GULFPORT
APPROACH CONTROL
127.5 287.1
V 70
V 455E
49
McHenry
50
100
Saucier
15 NM
V20N
V20
Picayune
Pearl River Co.
V240
GULFPORT-BILOXI
REGIONAL
GPT
Keesler
AFB
Ocean Springs
10
Gulf Park
Biloxi
Stennis Intl
10
Diamond
Head
Bay St. Louis
Pass Christian
V198
Horn Island
V20-455E
Clermont Harbor
Cat Island
Ship Island
130°M
15 NM
130°-309°
CONTACT GULFPORT
APPROACH CONTROL
124.6 354.1
50
100
W-453
V240
V198
A-381
LEGEND
VFR CHECK POINT
SURFACE TO 7000' MSL
2000' MSL TO 7000' MSL
5000' MSL TO 10000' MSL

Prepared by the National Ocean Survey
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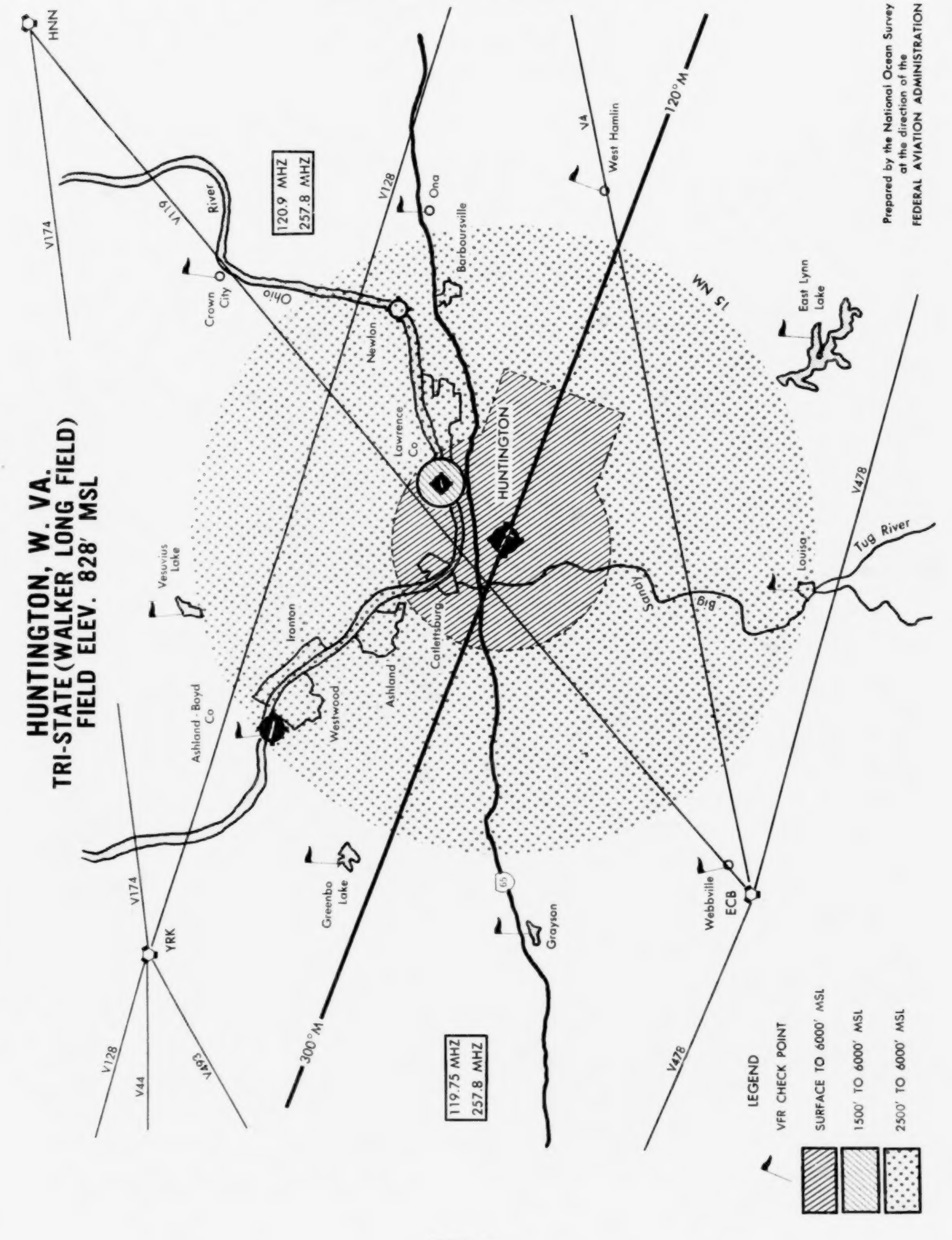
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

HUNTINGTON, W. VA.
TRI-STATE (WALKER LONG FIELD)
FIELD ELEV. 828' MSL


HNN
V174
V119
River
Ohio
Crown City
120.9 MHZ
257.8 MHZ
V128
Ona
Barboursville
V4
West Hamlin
120°M
15 NM
East Lynn Lake
Newlon
Lawrence Co
HUNTINGTON
Vesuvius Lake
Ironton
Catlettsburg
Ashland
Westwood
Ashland - Boyd Co
Big Sandy
Louisa
Tug River
V478
Greenbo Lake
65
Grayson
Webbville
ECB
YRK
V174
V128
V44
V493
300°M
119.75 MHZ
257.8 MHZ
V478
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
1500' TO 6000' MSL
2500' TO 6000' MSL

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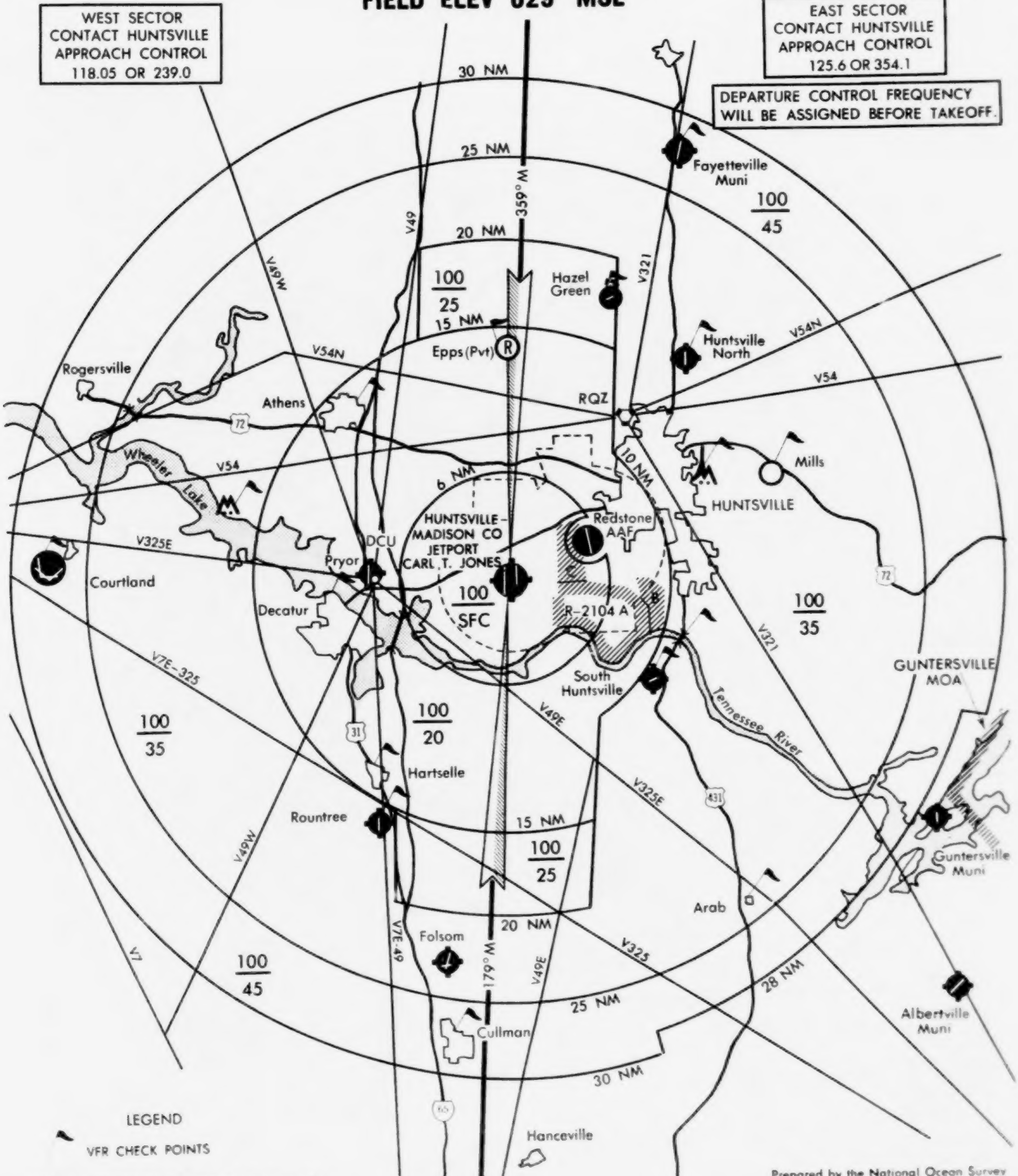
HUNTSVILLE, ALABAMA HUNTSVILLE-MADISON COUNTY JETPORT
CARL T. JONES
FIELD ELEV 629' MSL



WEST SECTOR
CONTACT HUNTSVILLE
APPROACH CONTROL
118.05 OR 239.0

EAST SECTOR
CONTACT HUNTSVILLE
APPROACH CONTROL
125.6 OR 354.1

DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF.

30 NM
25 NM
20 NM
15 NM
10 NM
6 NM
28 NM
359° M
179° M
Fayetteville Muni
100
45
Hazel Green
V321
V49
V49W
100
25
Epps(Pvt)
R
Huntsville North
V54N
V54
RQZ
Rogersville
Athens
72
Wheeler Lake
Mills
HUNTSVILLE
Redstone AAF
HUNTSVILLE-MADISON CO JETPORT CARL T. JONES
100
SFC
R-2104 A
B
C
DCU
Pryor
V325E
Courtland
Decatur
100
35
South Huntsville
Tennessee River
GUNTERSVILLE MOA
V7E-325
V49E
100
20
31
Hartselle
431
Rountree
V49W
V325E
Guntersville Muni
100
25
Arab
V7E-49
Folsom
V7
V325
100
45
V49E
Albertville Muni
Cullman
65
Hanceville

LEGEND

VFR CHECK POINTS

100 CEILING IN HUNDREDS OF FEET MSL
45 FLOOR IN IHUNDREDS OF FEET MSL

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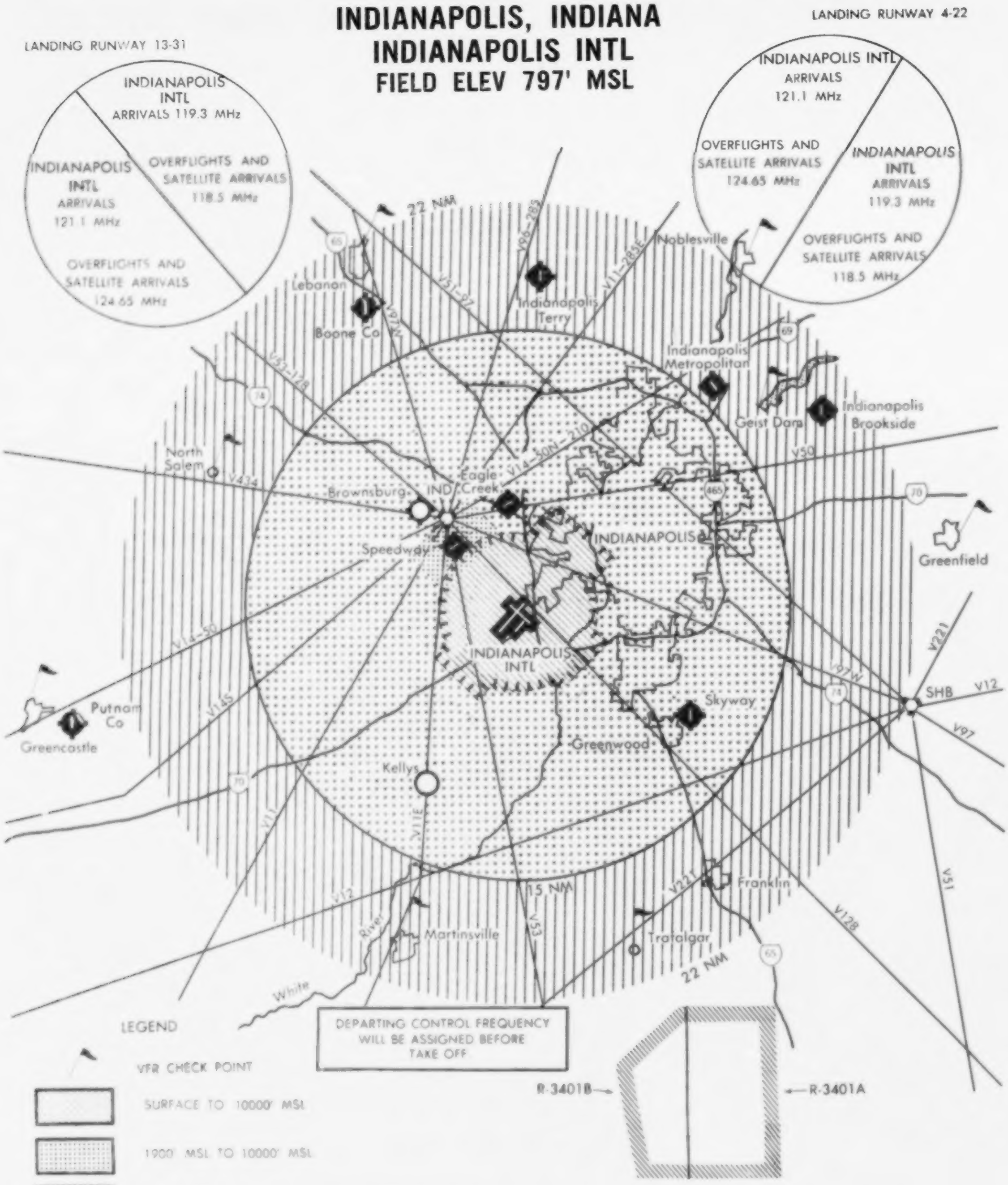
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

INDIANAPOLIS, INDIANA
INDIANAPOLIS INTL
FIELD ELEV 797' MSL


LANDING RUNWAY 13-31
INDIANAPOLIS INTL ARRIVALS 119.3 MHz
INDIANAPOLIS INTL ARRIVALS 121.1 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 118.5 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 124.65 MHz
LANDING RUNWAY 4-22
INDIANAPOLIS INTL ARRIVALS 121.1 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 124.65 MHz
INDIANAPOLIS INTL ARRIVALS 119.3 MHz
OVERFLIGHTS AND SATELLITE ARRIVALS 118.5 MHz
22 NM
65
Lebanon
Boone Co
V97N
V51-97
V96-285
Indianapolis Terry
V11-285E
Noblesville
69
Indianapolis Metropolitan
Geist Dam
Indianapolis Brookside
V53-128
74
North Salem
V434
Brownsburg
IND
Eagle Creek
V14-50N-210
465
V50
70
Greenfield
Speedway
INDIANAPOLIS
INDIANAPOLIS INTL
V14-50
V145
Putnam Co
Greencastle
V221
V97W
74
SHB
V12
V97
Skyway
Greenwood
Kellys
70
V11
V11E
V12
15 NM
V221
Franklin
V51
V128
River
Martinsville
V53
Trafalgar
White
22 NM
65
DEPARTING CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF
R-3401B
R-3401A

LEGEND

VFR CHECK POINT

▨ SURFACE TO 10000' MSL

▨ 1900' MSL TO 10000' MSL

▨ 2000' MSL TO 10000' MSL

▥ 6000' MSL TO 10000' MSL

NOTE: VFR ARRIVALS VERIFY LANDING RUNWAY ON ATIS TO DETERMINE APPROACH CONTROL FREQUENCY. 125.35 MHz

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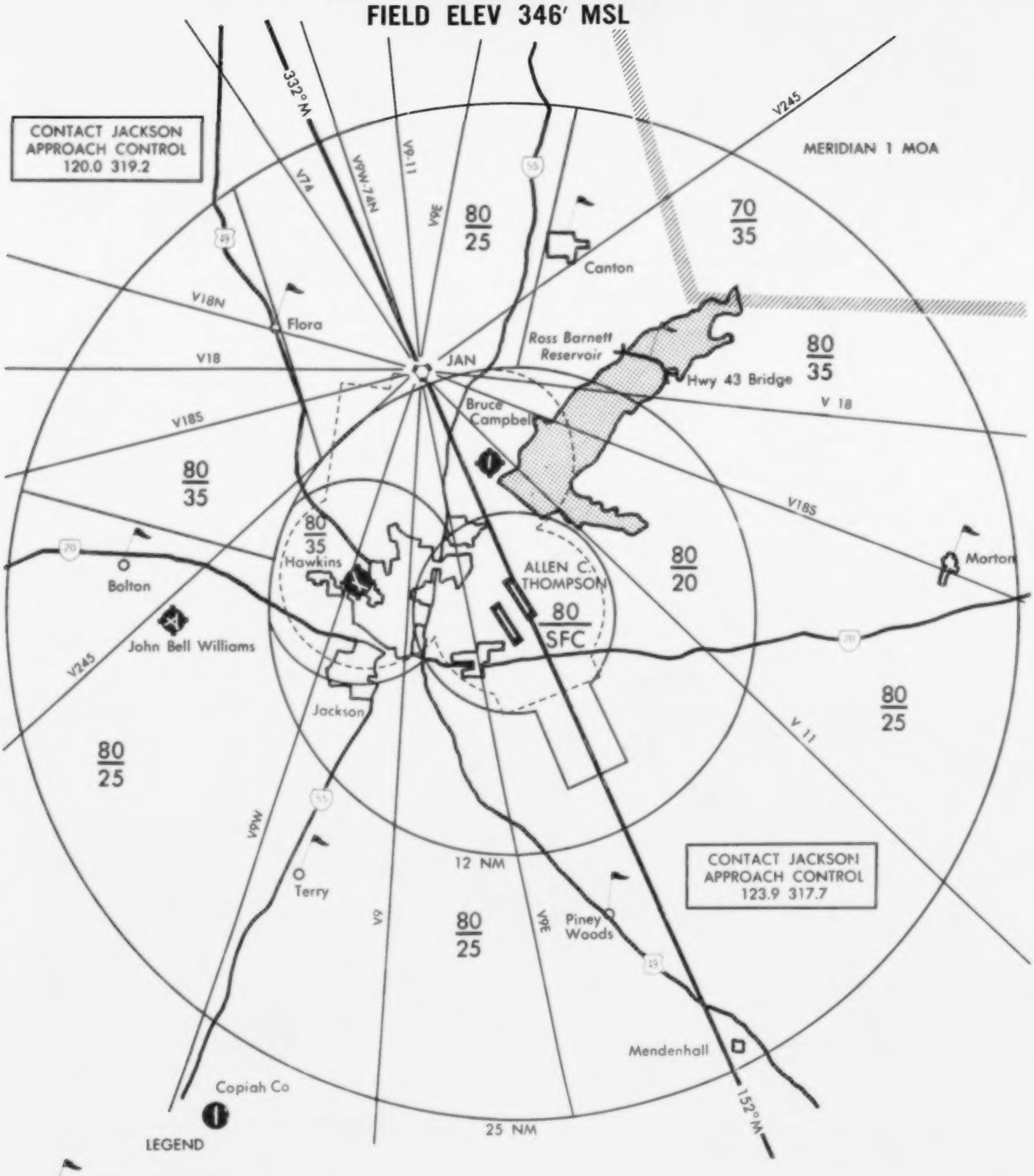
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

JACKSON, MISSISSIPPI
ALLEN C. THOMPSON FIELD
FIELD ELEV 346′ MSL


332° M
V74
V9W-74N
V9-11
V9E
55
49
80
25
70
35
MERIDIAN 1 MOA
V245
Canton
V18N
Flora
V18
JAN
Ross Barnett
Reservoir
Hwy 43 Bridge
80
35
V 18
Bruce
Campbell
V18S
80
35
V18S
Morton
80
35
Hawkins
20
Bolton
ALLEN C.
THOMPSON
80
20
80
SFC
John Bell Williams
20
V245
Jackson
V 11
80
25
80
25
55
V9W
12 NM
Terry
V9
80
25
V9E
Piney
Woods
49
Mendenhall
152° M
Copiah Co
25 NM

CONTACT JACKSON
APPROACH CONTROL
120.0 319.2

CONTACT JACKSON
APPROACH CONTROL
123.9 317.7

LEGEND

VFR CHECK POINT

80	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
35	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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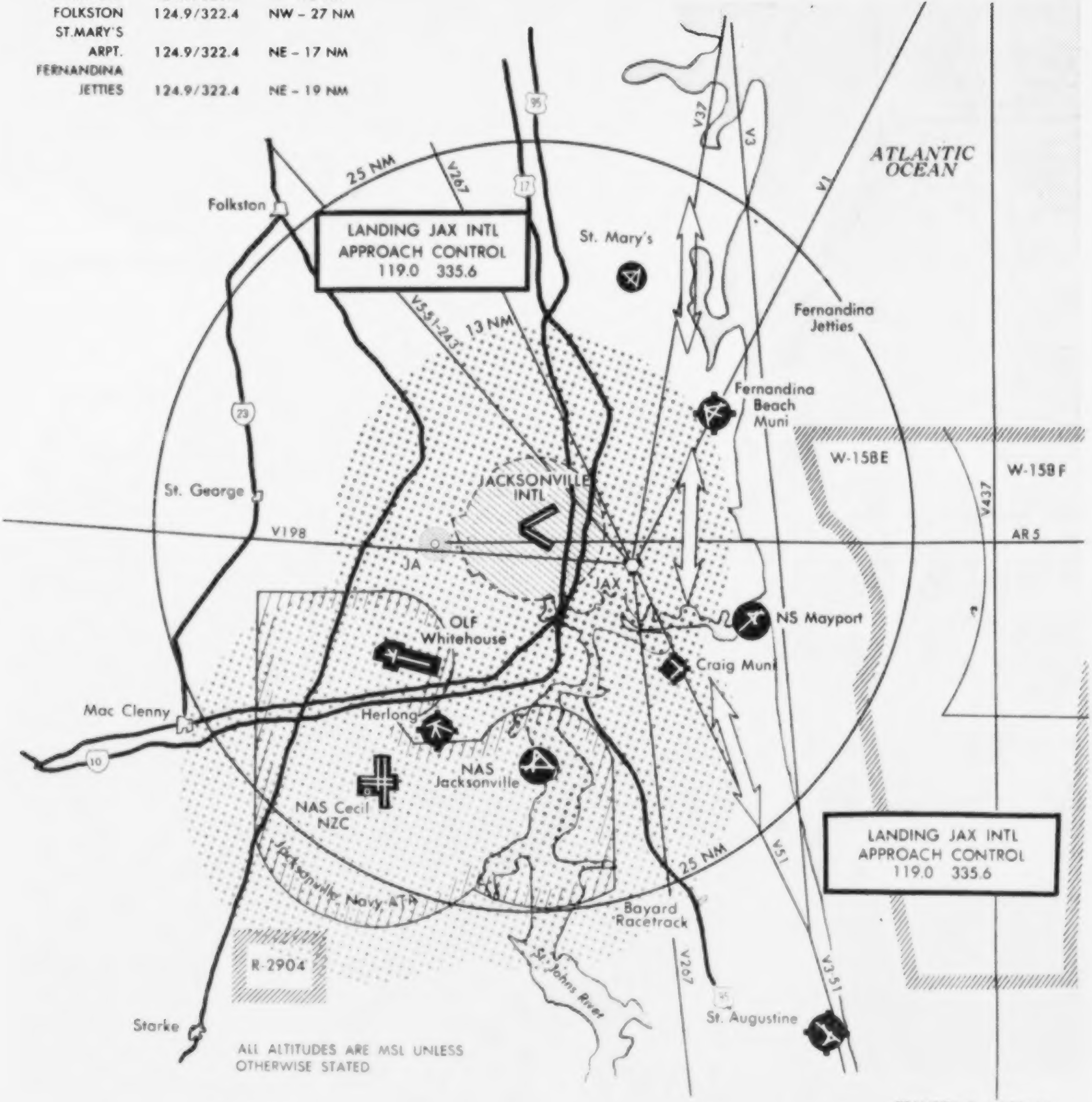
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE, FLA., JACKSONVILLE INTL. AIRPORT
FIELD ELEV. 30′ MSL

	TRANSITING AIRCRAFT	
ST. GEORGE	124.9/322.4	W – 18 NM
FOLKSTON	124.9/322.4	NW – 27 NM
ST.MARY'S ARPT.	124.9/322.4	NE – 17 NM
FERNANDINA JETTIES	124.9/322.4	NE – 19 NM


95
17
V267
25 NM
Folkston
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
V37
V3
V1
ATLANTIC OCEAN
St. Mary's
V5-51-243
13 NM
Fernandina
Jetties
23
Fernandina
Beach
Muni
W-158E
W-158F
St. George
JACKSONVILLE
INTL
V198
V437
AR 5
JA
JAX
OLF
Whitehouse
NS Mayport
Craig Muni
Mac Clenny
Herlong
10
NAS
Jacksonville
NAS Cecil
NZC
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
V51
25 NM
Jacksonville Navy ATA
Bayard
Racetrack
R-2904
V267
V3-51
St. Johns River
95
St. Augustine
Starke
ALL ALTITUDES ARE MSL UNLESS
OTHERWISE STATED

LEGEND

⟺	SUGGESTED N/S VFR ROUTE CAUTION MAYPORT AND CRAIG TRAFFIC AREA
▭	SFC TO 11,000′ WITHIN AIRPORT CONTROL ZONE
⁙	2,000′ TO 11,000′

	TRANSITING AIRCRAFT	
BAYARD RACETRACK	118.0/351.8	SE – 25 NM
NORTHBOUND 70 OR BELOW	124.4/372.1	SE – 25 NM
STARKE	127.0/319.9	SW – 40 NM
MAC CLENNY	127.0/319.9	SW – 40 NM

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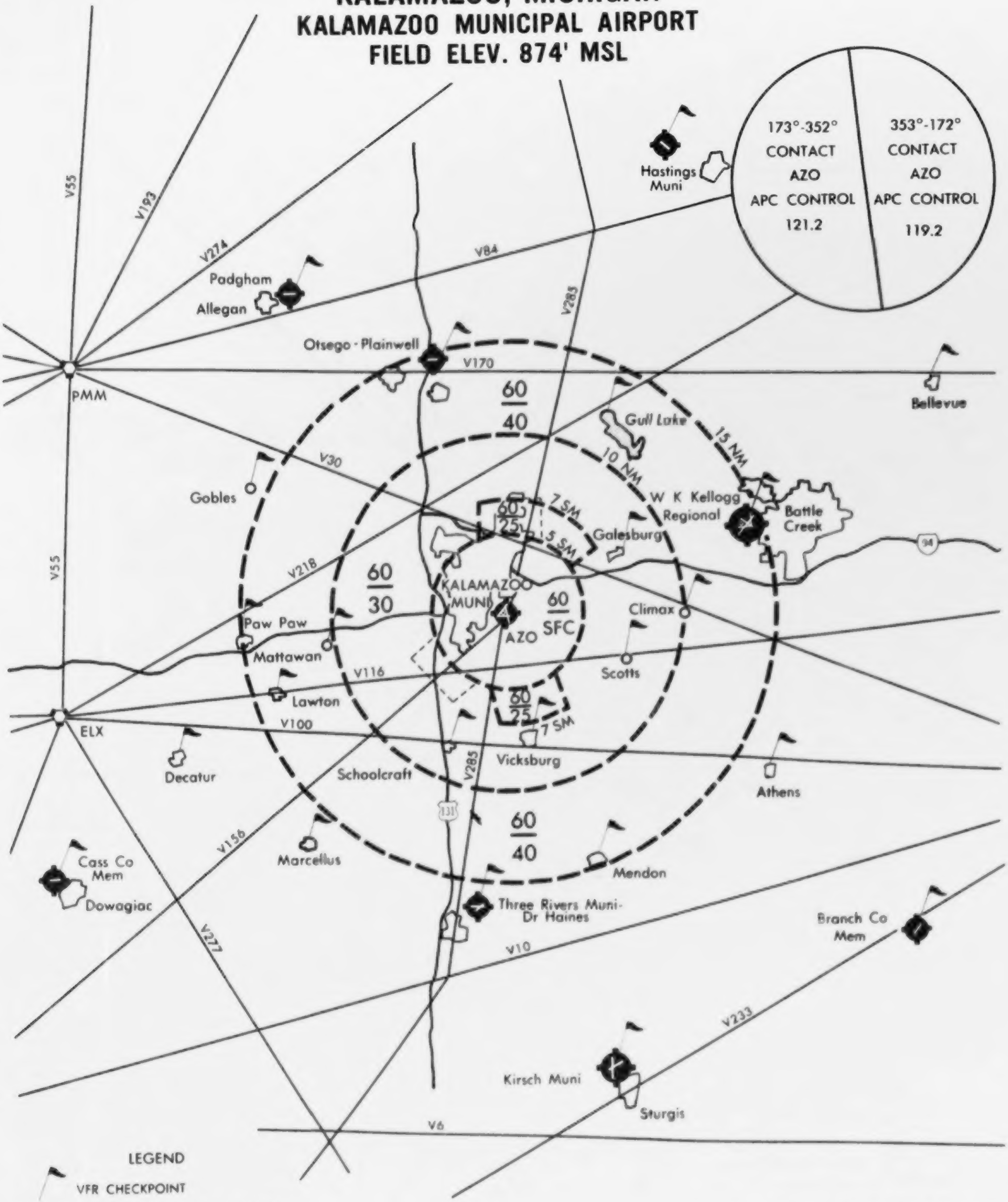
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

KALAMAZOO, MICHIGAN
KALAMAZOO MUNICIPAL AIRPORT
FIELD ELEV. 874' MSL


173°-352°
CONTACT
AZO
APC CONTROL
121.2
353°-172°
CONTACT
AZO
APC CONTROL
119.2
Hastings Muni
V55
V193
V274
V84
V285
Padgham
Allegan
Otsego - Plainwell
V170
Bellevue
PMM
60
40
Gull Lake
15 NM
10 NM
V30
Gobles
W K Kellogg Regional
Battle Creek
60
25
7 SM
5 SM
Galesburg
94
V218
60
30
KALAMAZOO MUNI
60
SFC
AZO
Climax
Paw Paw
Mattawan
Scotts
V116
Lawton
60
25
7 SM
ELX
V100
Vicksburg
Decatur
Schoolcraft
V285
Athens
131
60
40
V156
Cass Co Mem
Marcellus
Mendon
Dowagiac
Three Rivers Muni-Dr Haines
Branch Co Mem
V221
V10
V233
Kirsch Muni
Sturgis
V6

LEGEND

VFR CHECKPOINT

TERMINAL RADAR SERVICE AREA

60 CEILING IN HUNDREDS OF FEET MSL

SFC FLOOR IN HUNDREDS OF FEET MSL

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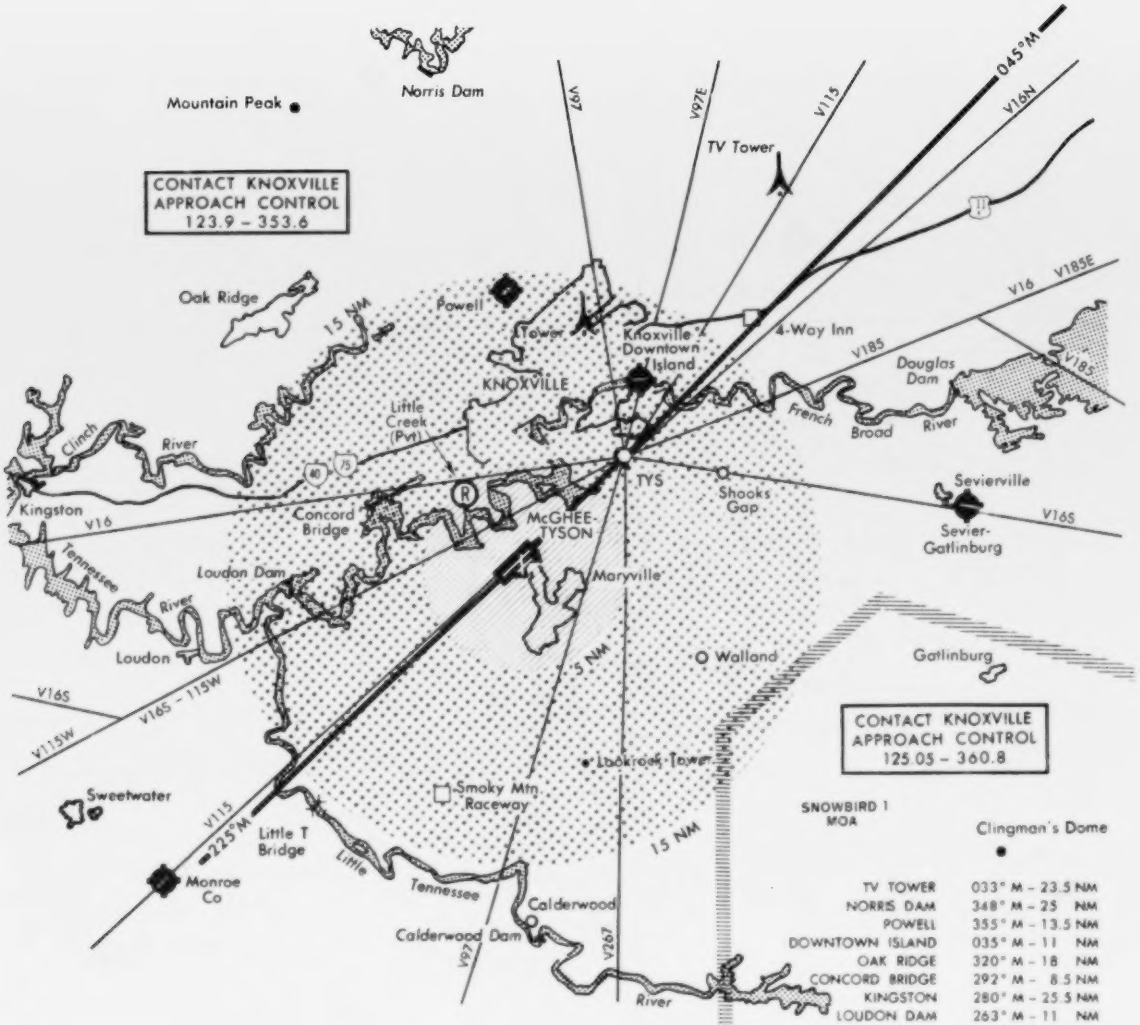
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

KNOXVILLE, TENNESSEE, McGHEE-TYSON ARPT
FIELD ELEV. 981′ MSL


Mountain Peak
Norris Dam
V97
V97E
V115
045°M
V16N
TV Tower
CONTACT KNOXVILLE APPROACH CONTROL 123.9 – 353.6
11
Oak Ridge
Powell
15 NM
Tower
Knoxville Downtown Island
4-Way Inn
V16
V185E
V185
Douglas Dam
V185
KNOXVILLE
Little Creek (Pvt)
Clinch
River
French
Broad
River
40
75
R
TYS
Shooks Gap
Sevierville
Kingston
V16
Concord Bridge
McGHEE-TYSON
Sevier-Gatlinburg
V16S
Tennessee
Loudon Dam
Maryville
River
Loudon
5 NM
O Walland
Gatlinburg
V16S
V16S - 115W
V115W
CONTACT KNOXVILLE APPROACH CONTROL 125.05 – 360.8
Lookrock Tower
Sweetwater
Smoky Mtn Raceway
V115
225°M
Little T Bridge
15 NM
SNOWBIRD 1 MOA
Clingman's Dome
Monroe Co
Little
Tennessee
Calderwood
Calderwood Dam
V97
V267
River

TV TOWER	033° M – 23.5 NM
NORRIS DAM	348° M – 25 NM
POWELL	355° M – 13.5 NM
DOWNTOWN ISLAND	035° M – 11 NM
OAK RIDGE	320° M – 18 NM
CONCORD BRIDGE	292° M – 8.5 NM
KINGSTON	280° M – 25.5 NM
LOUDON DAM	263° M – 11 NM
SWEETWATER	242° M – 26 NM
MONROE CO	229° M – 24.5 NM
4-WAY INN	044° M – 17 NM
DOUGLAS DAM	067° M – 23 NM
SHOOKS GAP	065° M – 10.5 NM
SEVIER-GATLINBURG	082° M – 22.5 NM
WALLAND	120° M – 8.5 NM
GATLINBURG	103° M – 24 NM
SMOKY MTN. RACEWAY	210° M – 12.3 NM
CALDERWOOD DAM	178° M – 19 NM
CLINGMAN'S DOME	122° M – 28 NM
LITTLE T BRIDGE	218° M – 16 NM

LEGEND

▨	SURFACE TO 6000′ MSL
░	4000′ TO 6000′ MSL

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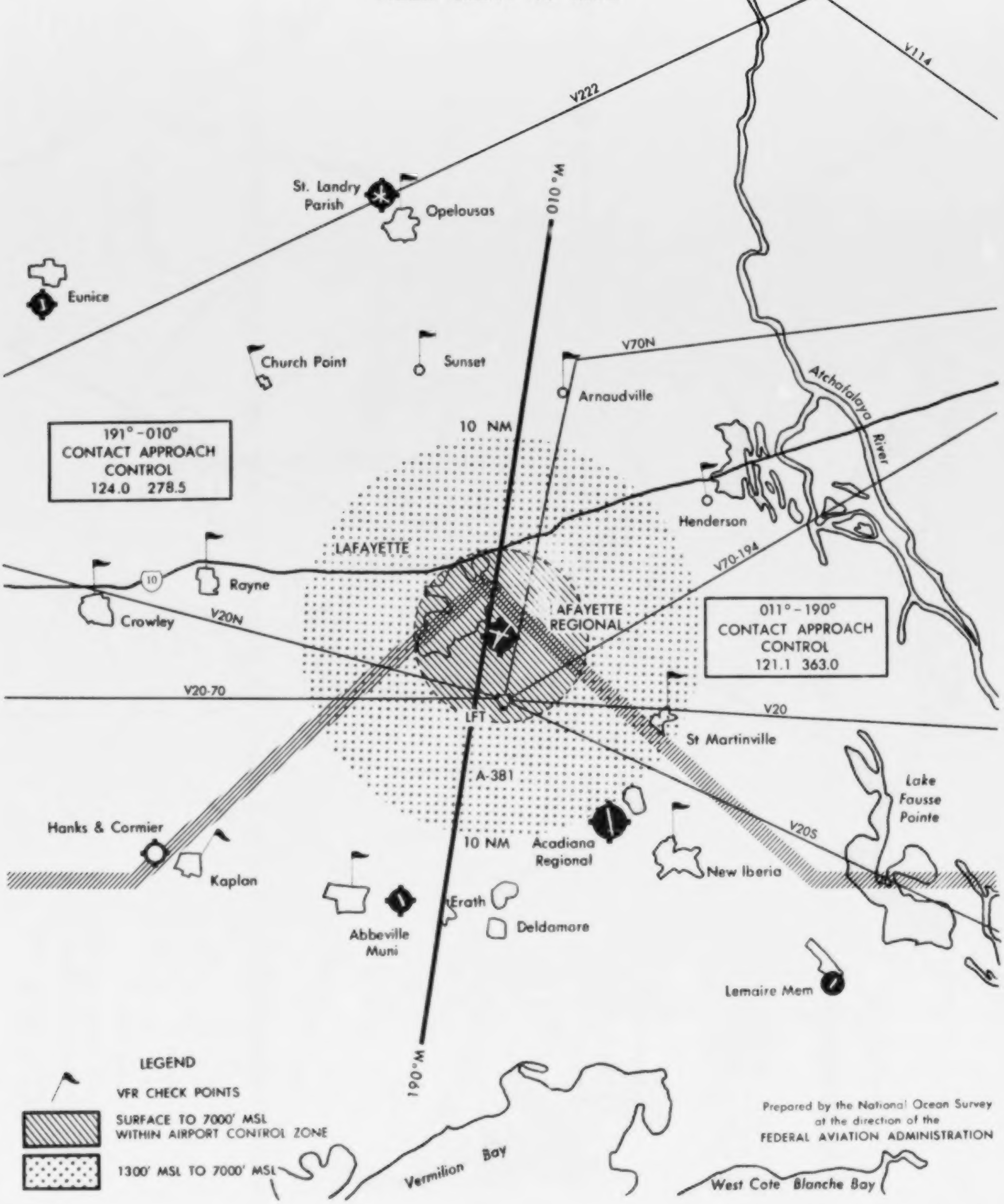
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LAFAYETTE, LOUISIANA
LAFAYETTE REGIONAL AIRPORT
FIELD ELEV. 42′ MSL


V114
V222
St. Landry Parish
Opelousas
010°W
Eunice
Church Point
Sunset
V70N
Arnaudville
Atchafalaya River
10 NM
191° - 010°
CONTACT APPROACH
CONTROL
124.0 278.5
Henderson
LAFAYETTE
Rayne
10
V70-194
Crowley
V20N
LAFAYETTE REGIONAL
011° - 190°
CONTACT APPROACH
CONTROL
121.1 363.0
V20-70
LFT
V20
St Martinville
A-381
Lake Fausse Pointe
Hanks & Cormier
10 NM
Acadiana Regional
V20S
Kaplan
New Iberia
Erath
Abbeville Muni
Deldamore
Lemaire Mem
190°W
Vermilion Bay
West Cote Blanche Bay
LEGEND
VFR CHECK POINTS
SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE
1300′ MSL TO 7000′ MSL

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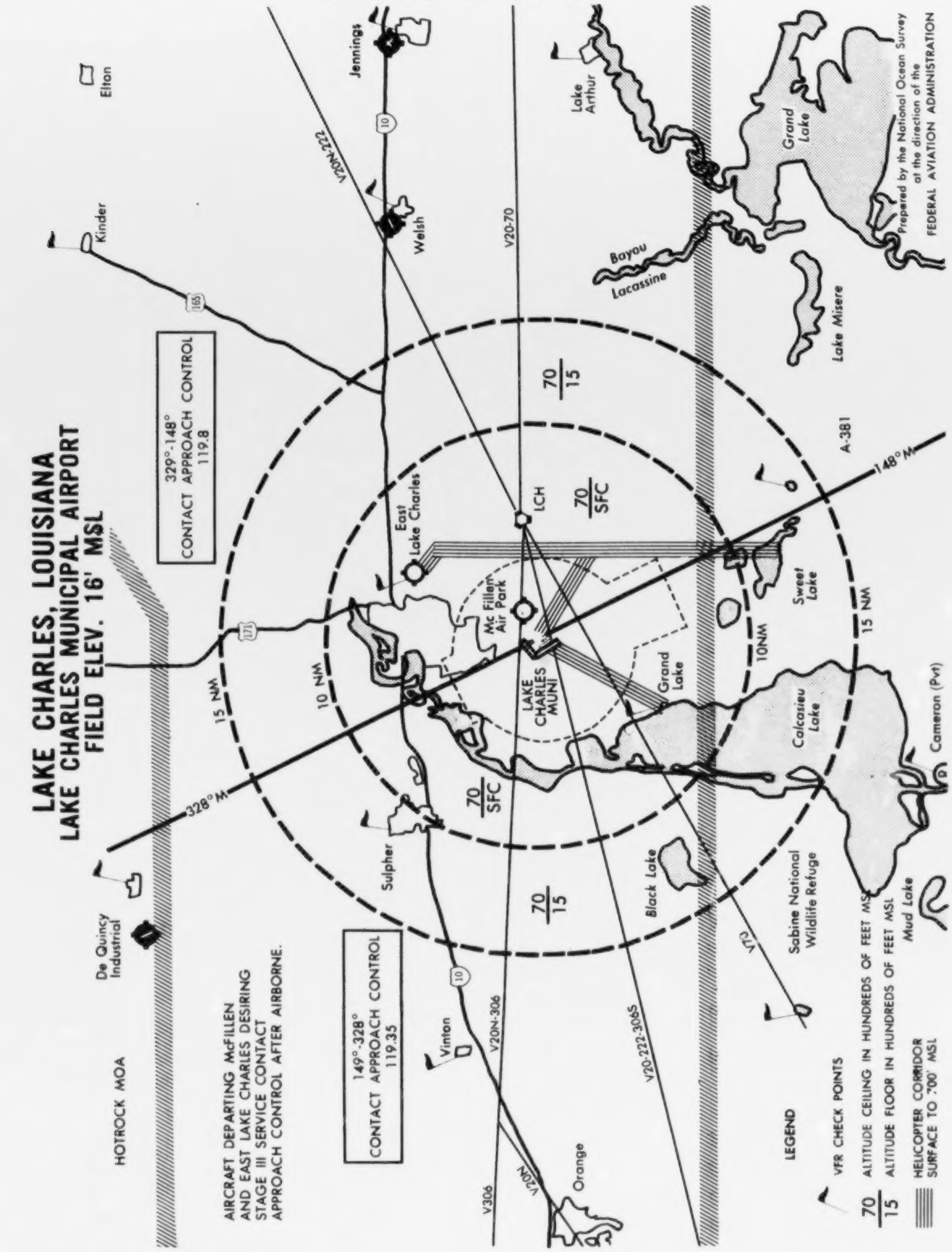
29 NOV 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)



LAKE CHARLES, LOUISIANA
LAKE CHARLES MUNICIPAL AIRPORT
FIELD ELEV. 16' MSL

329°-148°
CONTACT APPROACH CONTROL
119.8

149°-328°
CONTACT APPROACH CONTROL
119.35

AIRCRAFT DEPARTING McFILLEN AND EAST LAKE CHARLES DESIRING STAGE III SERVICE CONTACT APPROACH CONTROL AFTER AIRBORNE.

LEGEND

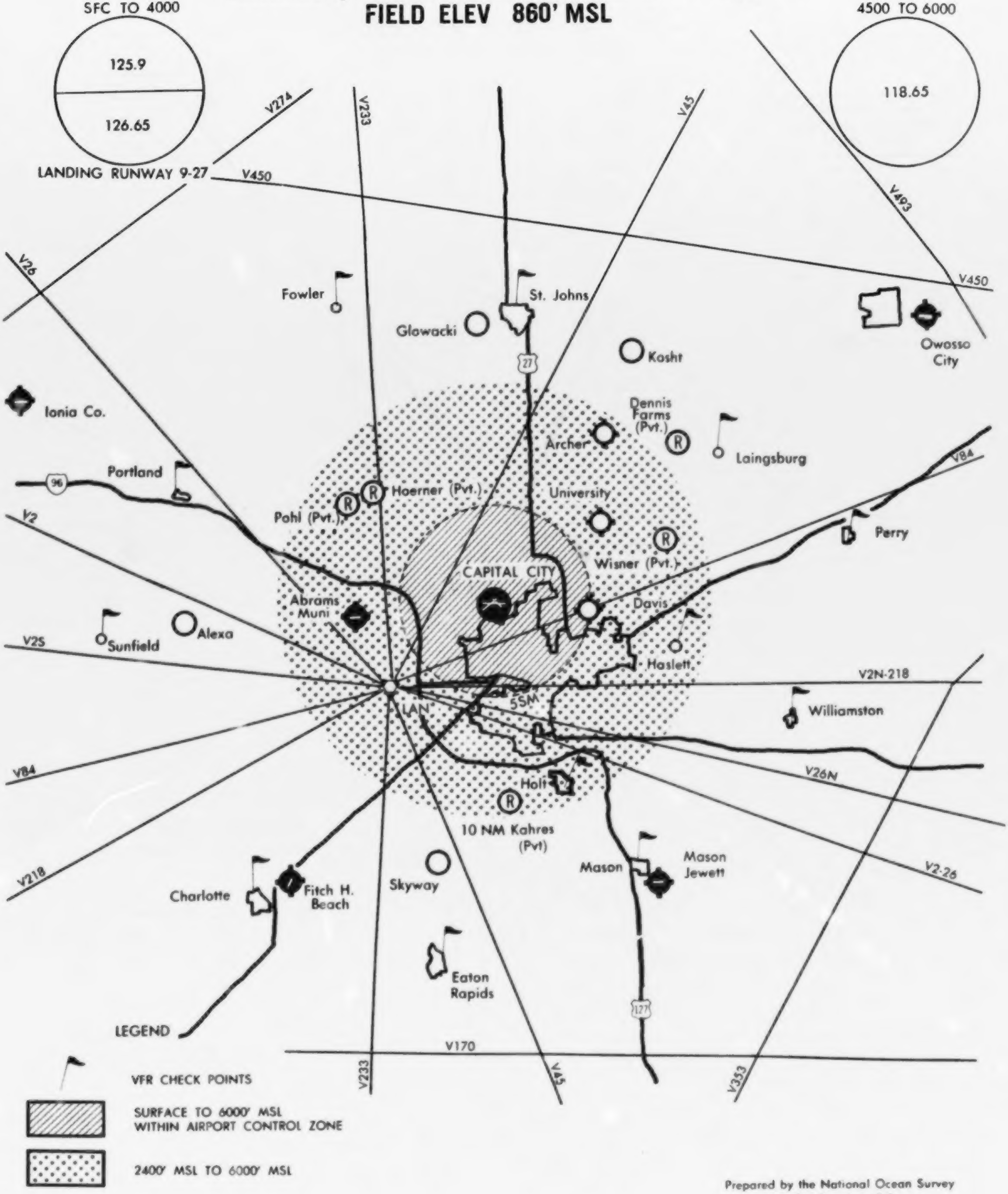
⚑	VFR CHECK POINTS
$\frac{70}{15}$	ALTITUDE CEILING IN HUNDREDS OF FEET MSL ALTITUDE FLOOR IN HUNDREDS OF FEET MSL
▨	HELICOPTER CORRIDOR SURFACE TO 700' MSL

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

HOTROCK MOA
De Quincy Industrial
Kinder
Elton
Jennings
Welsh
Lake Arthur
Grand Lake
Bayou Lacassine
Lake Misere
V20N-222
V20-70
10
165
171
15 NM
10 NM
328°M
148°M
East Lake Charles
LCH
Mc Fillen Air Park
LAKE CHARLES MUNI
Grand Lake
Sweet Lake
A-381
70/SFC
70/15
Sulpher
Black Lake
Calcasieu Lake
Cameron (Pvt)
Sabine National Wildlife Refuge
Mud Lake
V70
V20-222-306S
V20N-306
V306
V20N
Vinton
Orange

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LANSING, MICHIGAN CAPITAL CITY ARPT.
FIELD ELEV 860' MSL

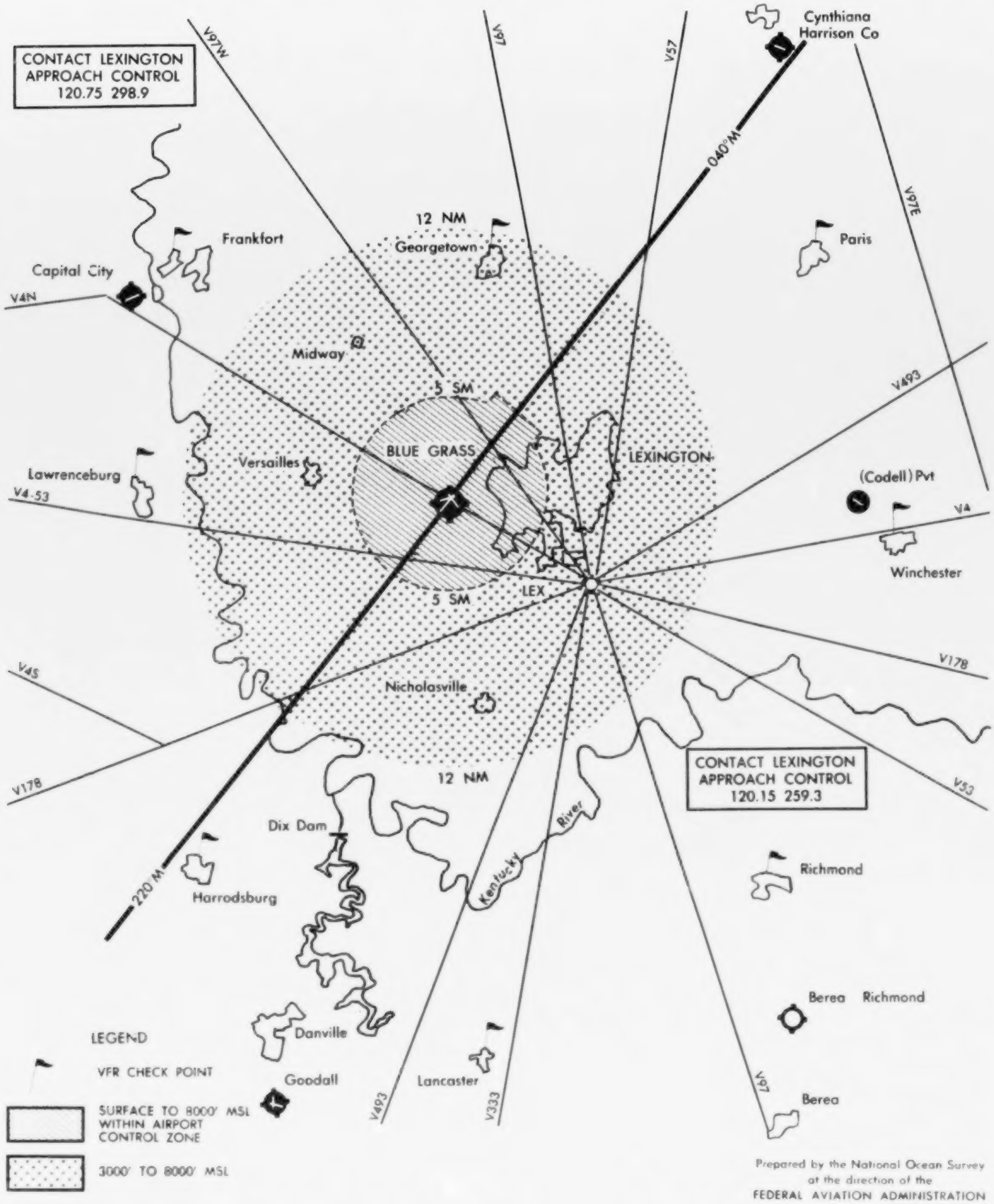

SFC TO 4000
125.9
126.65
LANDING RUNWAY 9-27
4500 TO 6000
118.65
V274
V233
V45
V450
V493
V26
V2
V25
V84
V218
V2N-218
V26N
V2-26
V170
V353
Fowler
St. Johns
Glowacki
Kosht
Owosso City
Ionia Co.
Dennis Farms (Pvt.)
Archer
Laingsburg
Portland
Hoerner (Pvt.)
Pohl (Pvt.)
University
Wisner (Pvt.)
Perry
CAPITAL CITY
Abrams Muni
Davis
Alexa
Sunfield
Haslett
LAN
5SM
Williamston
Holt
10 NM Kahres (Pvt)
Mason
Mason Jewett
Charlotte
Fitch H. Beach
Skyway
Eaton Rapids
27
96
127
LEGEND
VFR CHECK POINTS
SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE
2400' MSL TO 6000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LEXINGTON, KENTUCKY
BLUE GRASS FIELD
FIELD ELEV. 979' MSL


CONTACT LEXINGTON
APPROACH CONTROL
120.75 298.9
V97W
V97
V57
Cynthiana
Harrison Co
040°M
V97E
12 NM
Georgetown
Frankfort
Paris
Capital City
V4N
Midway
5 SM
V493
BLUE GRASS
LEXINGTON
Versailles
Lawrenceburg
(Codell) Pvt
V4-53
V4
Winchester
5 SM
LEX
V4S
V178
Nicholasville
12 NM
CONTACT LEXINGTON
APPROACH CONTROL
120.15 259.3
V178
V53
Dix Dam
Kentucky River
Richmond
220°M
Harrodsburg
Berea Richmond
LEGEND
Danville
VFR CHECK POINT
Goodall
Lancaster
V493
V333
V97
Berea
SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE
3000' TO 8000' MSL

Prepared by the National Ocean Survey
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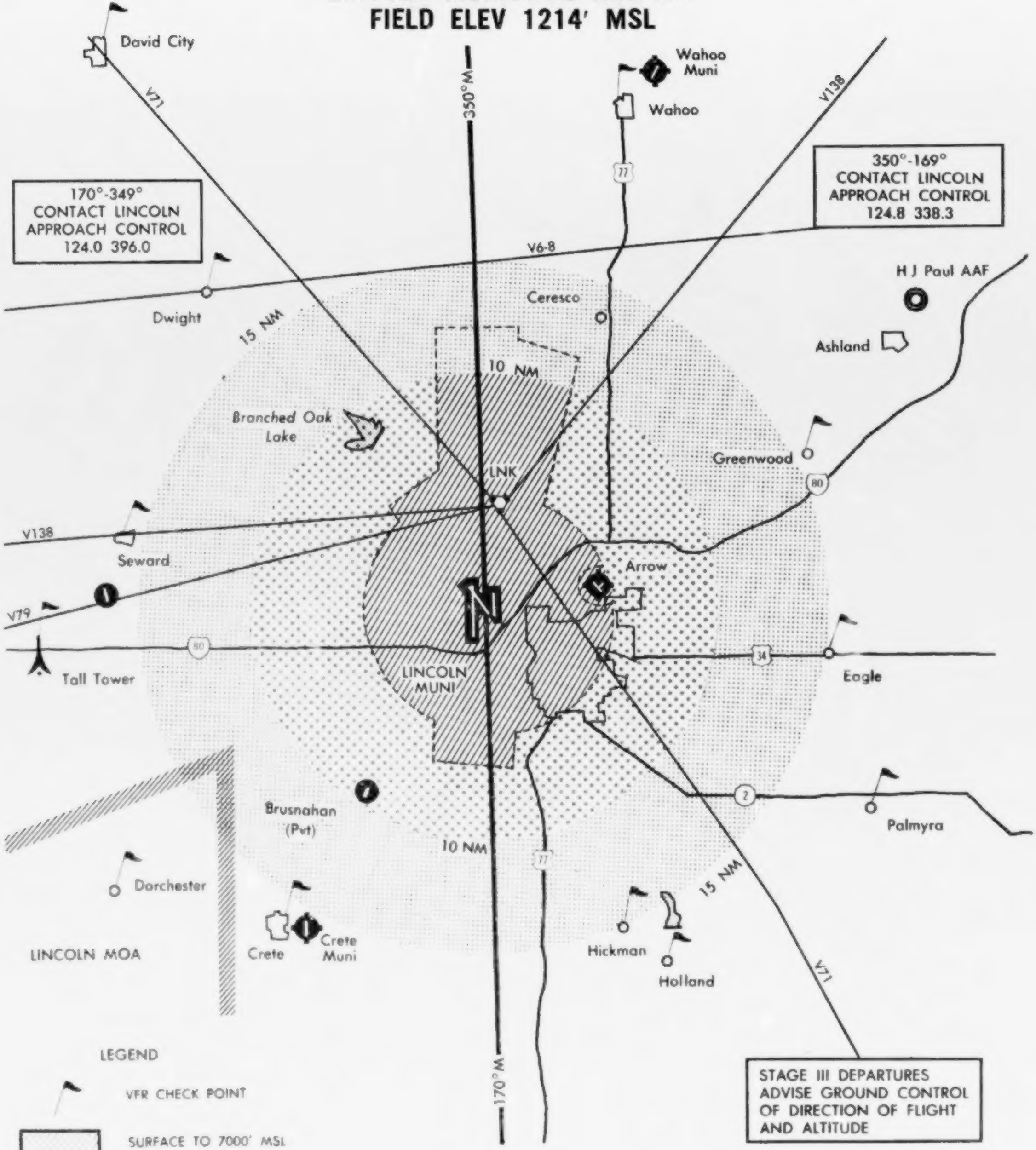
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LINCOLN, NEBRASKA
LINCOLN MUNICIPAL AIRPORT
FIELD ELEV 1214′ MSL


David City
V71
350° M
Wahoo Muni
Wahoo
V138
77
350°-169°
CONTACT LINCOLN
APPROACH CONTROL
124.8 338.3
170°-349°
CONTACT LINCOLN
APPROACH CONTROL
124.0 396.0
V6-8
H J Paul AAF
Dwight
Ceresco
15 NM
Ashland
10 NM
Branched Oak Lake
Greenwood
LNK
80
V138
Seward
Arrow
V79
N
80
34
Eagle
Tall Tower
LINCOLN MUNI
2
Brusnahan (Pvt)
Palmyra
10 NM
77
15 NM
Dorchester
Crete
Crete Muni
Hickman
Holland
V71
LINCOLN MOA
170° M
STAGE III DEPARTURES
ADVISE GROUND CONTROL
OF DIRECTION OF FLIGHT
AND ALTITUDE

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 7000′ MSL
- ▨ 2500′ TO 7000′ MSL
- ☐ 4000′ TO 7000′ MSL

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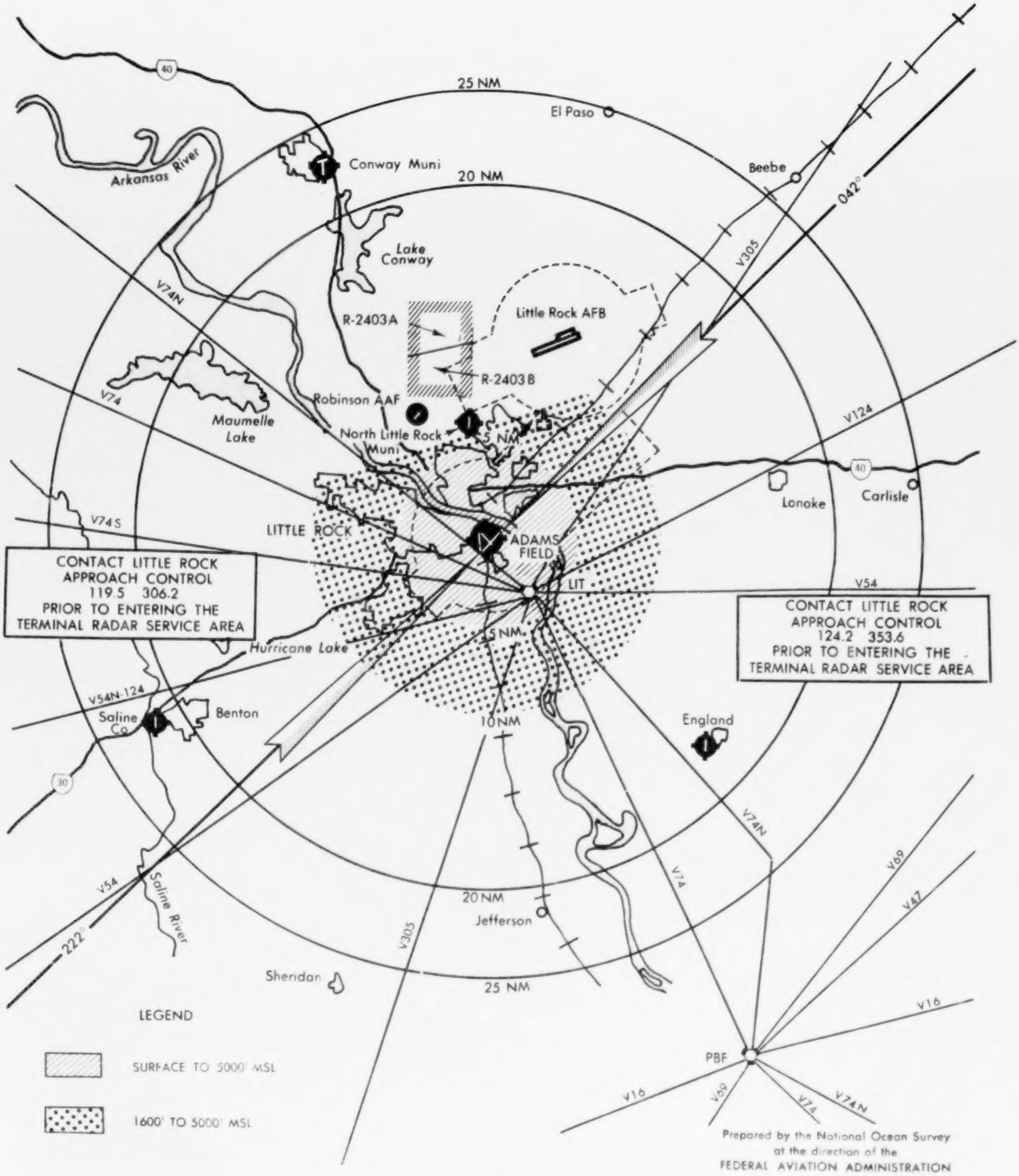
19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK, ARKANSAS, ADAMS FIELD
FIELD ELEV. 258′ MSL


40
25 NM
El Paso
Conway Muni
Arkansas River
20 NM
Beebe
042°
Lake Conway
V305
V74N
R-2403A
Little Rock AFB
R-2403B
V74
Robinson AAF
Maumelle Lake
North Little Rock Muni
5 NM
V124
40
Lonoke
Carlisle
V74S
LITTLE ROCK
ADAMS FIELD
LIT
V54
Hurricane Lake
5 NM
V54N-124
Saline Co
Benton
10 NM
England
30
V74N
V69
V47
V74
V54
Saline River
222°
20 NM
Jefferson
V305
Sheridan
25 NM
V16
PBF
V16
V69
V74
V74N

CONTACT LITTLE ROCK
APPROACH CONTROL
119.5 306.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT LITTLE ROCK
APPROACH CONTROL
124.2 353.6
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

LEGEND

▨ SURFACE TO 5000′ MSL

░ 1600′ TO 5000′ MSL

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at the direction of the
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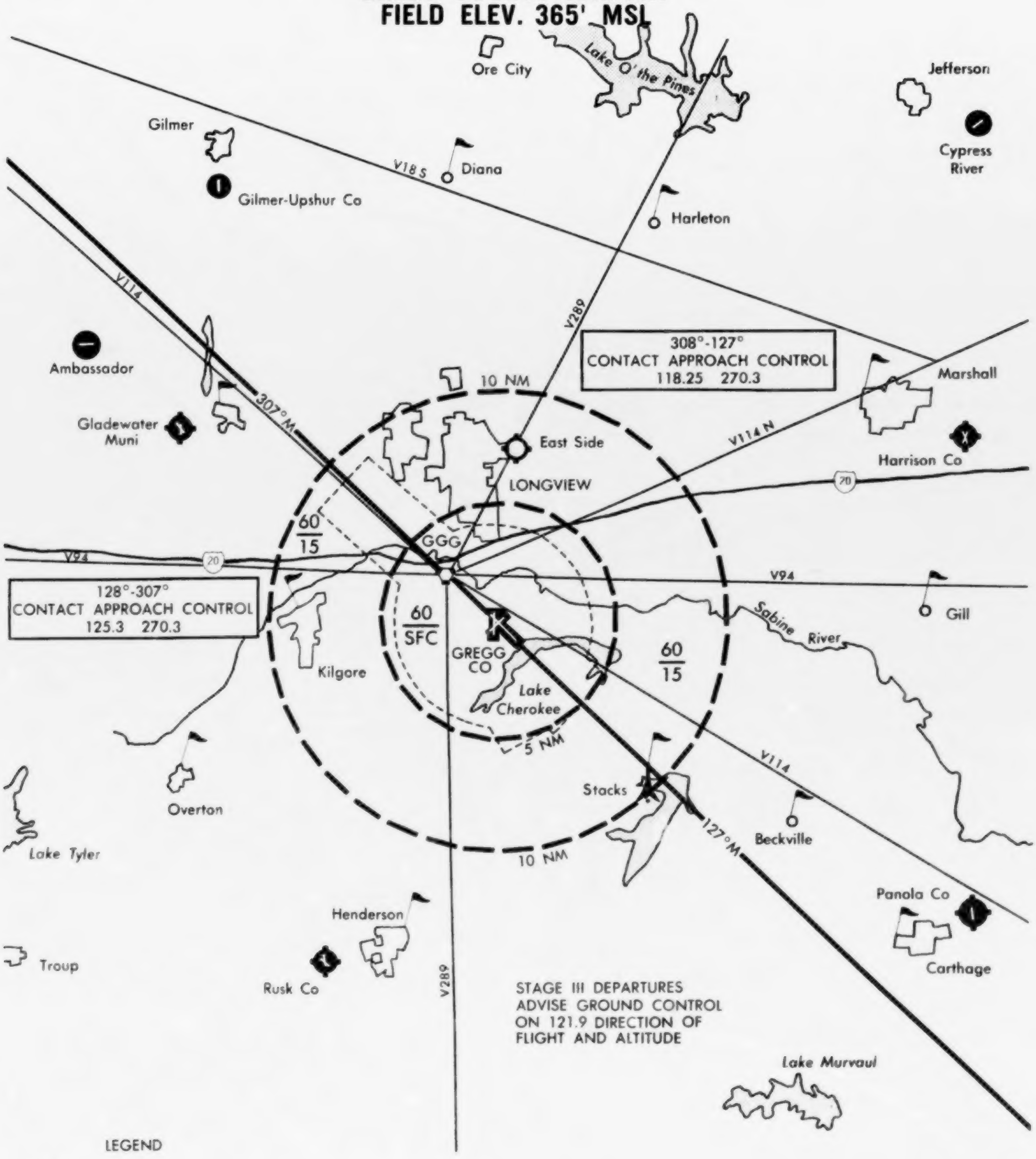
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LONGVIEW, TEXAS
GREGG COUNTY AIRPORT
FIELD ELEV. 365' MSL


Ore City
Lake O' the Pines
Jefferson
Cypress River
Gilmer
V18 S
Diana
Gilmer-Upshur Co
Harleton
V289
V114
Ambassador
Gladewater Muni
307°M
10 NM
East Side
LONGVIEW
Marshall
V114 N
Harrison Co
20
60
15
GGG
V94
60
SFC
GREGG CO
Kilgore
Lake Cherokee
5 NM
60
15
Sabine River
Gill
Stacks
V114
Overton
Lake Tyler
127°M
Beckville
10 NM
Panola Co
Henderson
Carthage
Troup
Rusk Co
V289
Lake Murvaul

308°-127°
CONTACT APPROACH CONTROL
118.25 270.3

128°-307°
CONTACT APPROACH CONTROL
125.3 270.3

STAGE III DEPARTURES ADVISE GROUND CONTROL ON 121.9 DIRECTION OF FLIGHT AND ALTITUDE

LEGEND

VFR CHECKPOINT

60 ALTITUDE CEILING IN HUNDREDS OF FEET MSL

15 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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at the direction of the
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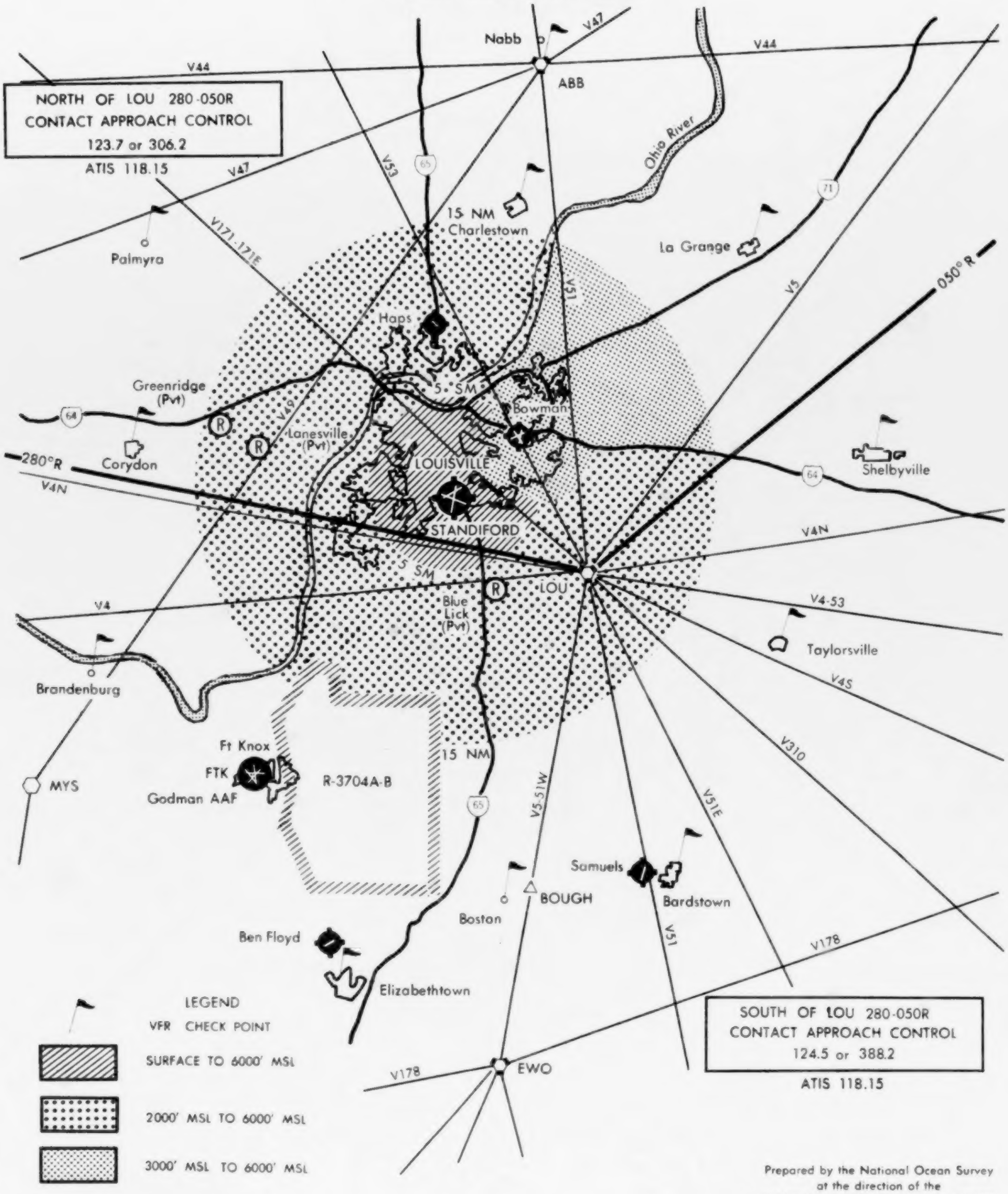
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY, STANDIFORD AIRPORT
FIELD ELEV 497' MSL


NORTH OF LOU 280-050R
CONTACT APPROACH CONTROL
123.7 or 306.2
ATIS 118.15
Nabb
ABB
V47
V44
V53
65
V171-171E
Ohio River
15 NM
Charlestown
La Grange
71
Palmyra
V51
V5
050° R
Haps
Greenridge (Pvt)
64
Corydon
R
V4N
280°R
Lanesville (Pvt)
5 SM
Bowman
LOUISVILLE
STANDIFORD
Shelbyville
LOU
Blue Lick (Pvt)
V4
V4-53
Taylorsville
V4S
Brandenburg
V310
Ft Knox
FTK
Godman AAF
R-3704A-B
MYS
V5-51W
V51E
Samuels
Bardstown
BOUGH
Boston
Ben Floyd
Elizabethtown
V178
EWO
SOUTH OF LOU 280-050R
CONTACT APPROACH CONTROL
124.5 or 388.2
ATIS 118.15
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL
3000' MSL TO 6000' MSL

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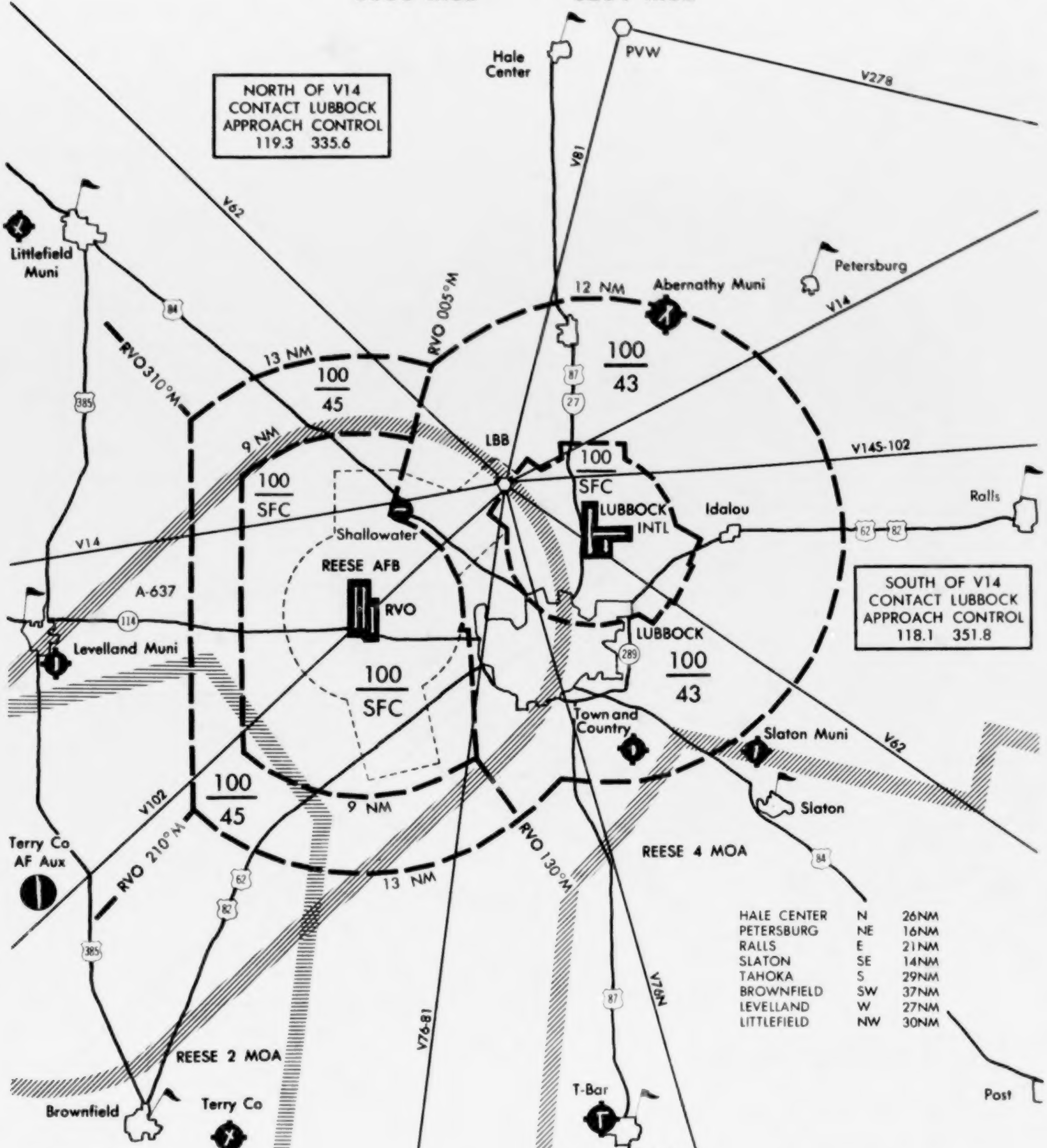
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LUBBOCK, TEXAS
REESE AFB - LUBBOCK INTL
3338' MSL 3281' MSL


NORTH OF V14
CONTACT LUBBOCK
APPROACH CONTROL
119.3 335.6
Hale Center
PVW
V278
V81
V62
Littlefield Muni
84
RVO 005°M
12 NM
Abernathy Muni
Petersburg
V14
RVO 310°M
13 NM
100
45
100
43
87
27
385
9 NM
LBB
100
SFC
V14S-102
Ralls
Shallowater
LUBBOCK INTL
Idalou
62
82
V14
REESE AFB
RVO
A-637
114
Levelland Muni
SOUTH OF V14
CONTACT LUBBOCK
APPROACH CONTROL
118.1 351.8
LUBBOCK
289
100
43
100
SFC
Town and Country
Slaton Muni
V62
V102
100
45
9 NM
Slaton
Terry Co AF Aux
RVO 210°M
RVO 130°M
REESE 4 MOA
13 NM
84
62
82
385
V76-81
87
V76N
REESE 2 MOA
Post
T-Bar
Brownfield
Terry Co
Tahoka

HALE CENTER	N	26NM
PETERSBURG	NE	16NM
RALLS	E	21NM
SLATON	SE	14NM
TAHOKA	S	29NM
BROWNFIELD	SW	37NM
LEVELLAND	W	27NM
LITTLEFIELD	NW	30NM

LEGEND

VFR CHECK POINT

100 ALTITUDE CEILING IN HUNDREDS OF FEET MSL

43 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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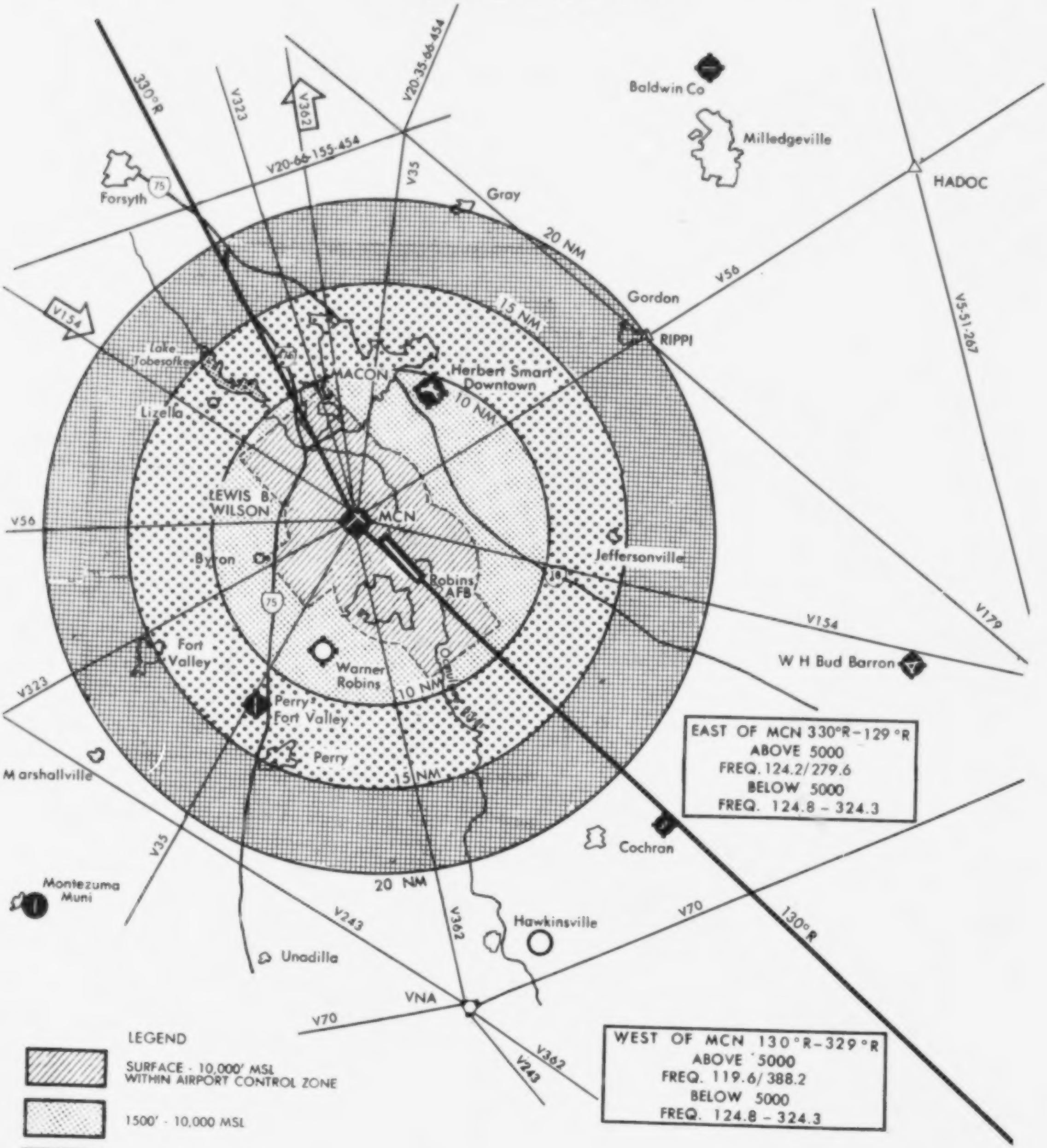
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MACON, GEORGIA, LEWIS B. WILSON AIRPORT
FIELD ELEV. 354′ MSL


330°R
V323
V362
V20-35-66-454
Baldwin Co
Milledgeville
V20-66-155-454
V35
Forsyth
75
Gray
HADOC
20 NM
V56
V5-51-267
V154
Gordon
RIPPI
15 NM
Lake Tobesofkee
MACON
Herbert Smart Downtown
Lizella
10 NM
LEWIS B. WILSON
MCN
V56
Byron
Jeffersonville
75
Robins AFB
V179
V154
Fort Valley
Warner Robins
W H Bud Barron
V323
Perry-Fort Valley
10 NM
Perry
15 NM
Marshallville
V35
Cochran
Montezuma Muni
20 NM
V243
V362
Hawkinsville
V70
130°R
Unadilla
VNA
V70
V362
V243

EAST OF MCN 330°R–129°R
ABOVE 5000
FREQ. 124.2/279.6
BELOW 5000
FREQ. 124.8 – 324.3

WEST OF MCN 130°R–329°R
ABOVE 5000
FREQ. 119.6/388.2
BELOW 5000
FREQ. 124.8 – 324.3

LEGEND

▨ SURFACE - 10,000′ MSL WITHIN AIRPORT CONTROL ZONE

░ 1500′ - 10,000 MSL

▒ 2000′ - 10,000′ MSL

▓ 2500′ - 10,000 MSL

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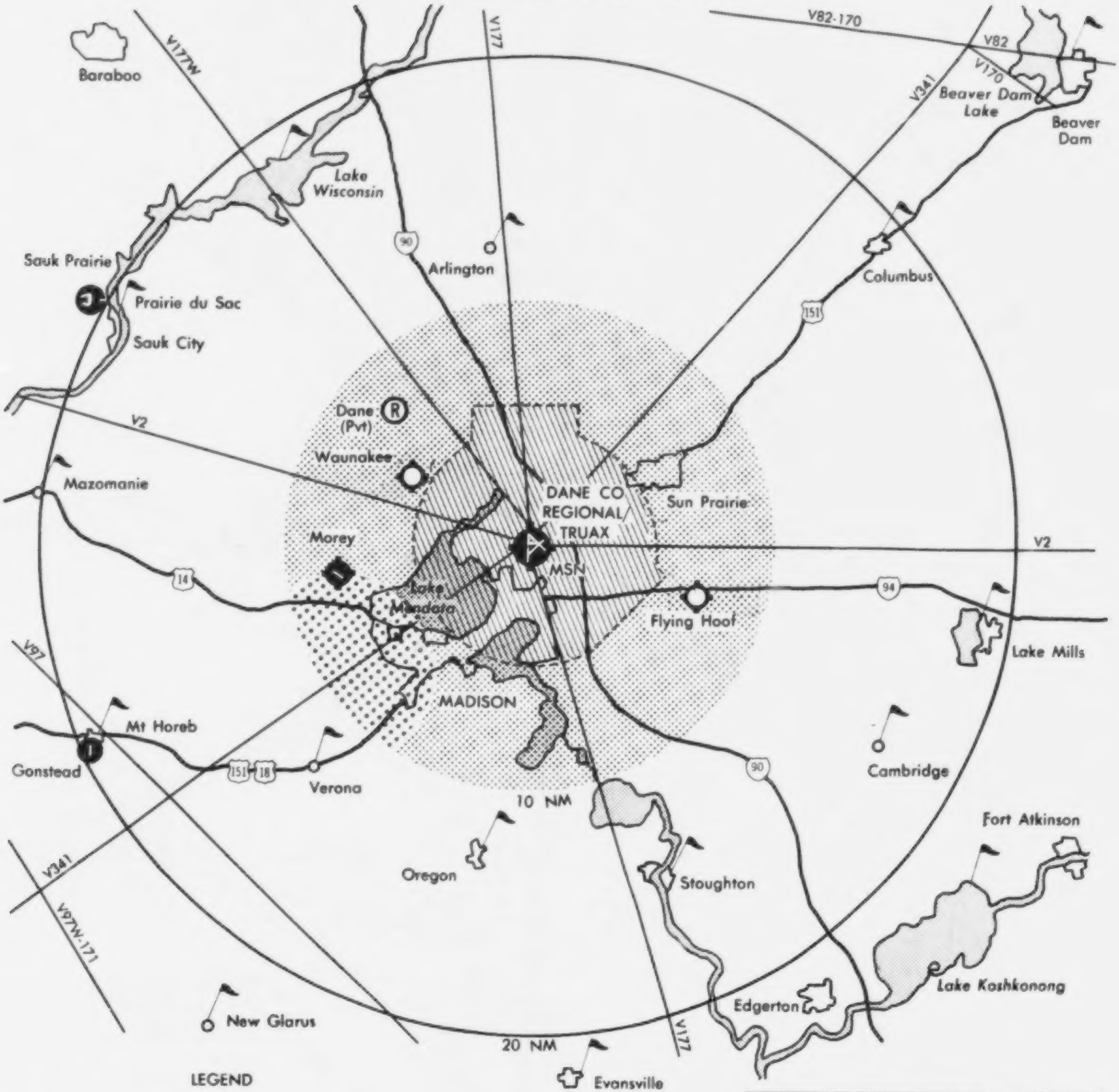
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MADISON, WISCONSIN
DANE CO. REGIONAL/TRUAX
FIELD ELEV 862′ MSL


Baraboo
V177W
V177
V82-170
V82
V170
V341
Beaver Dam Lake
Beaver Dam
Lake Wisconsin
90
Arlington
Columbus
151
Sauk Prairie
Prairie du Sac
Sauk City
Dane (Pvt)
V2
Waunakee
Mazomanie
DANE CO REGIONAL/ TRUAX
Sun Prairie
Morey
MSN
14
Lake Mendota
94
Flying Hoof
Lake Mills
V97
MADISON
Mt Horeb
Gonstead
151
18
Verona
Cambridge
10 NM
Fort Atkinson
V341
Oregon
Stoughton
V97W-171
Lake Koshkonong
Edgerton
New Glarus
20 NM
Evansville

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE

░ 2700′ MSL TO 6000′ MSL

░ 3500′ MSL TO 6000′ MSL

ATIS 115.5/126.1
APPROACH CONTROL
120.1/350.3 E OF ILS 360-180
124.0/396.0 W OF ILS 360-180
DEPARTURE FREQUENCIES/TRANSPONDER
CODES ASSIGNED BY GROUND CONTROL

STAGE THREE DEPARTURES
ADVISE GROUND CONTROL ON
121.9 OF DIRECTION OF FLIGHT
AND ALTITUDE

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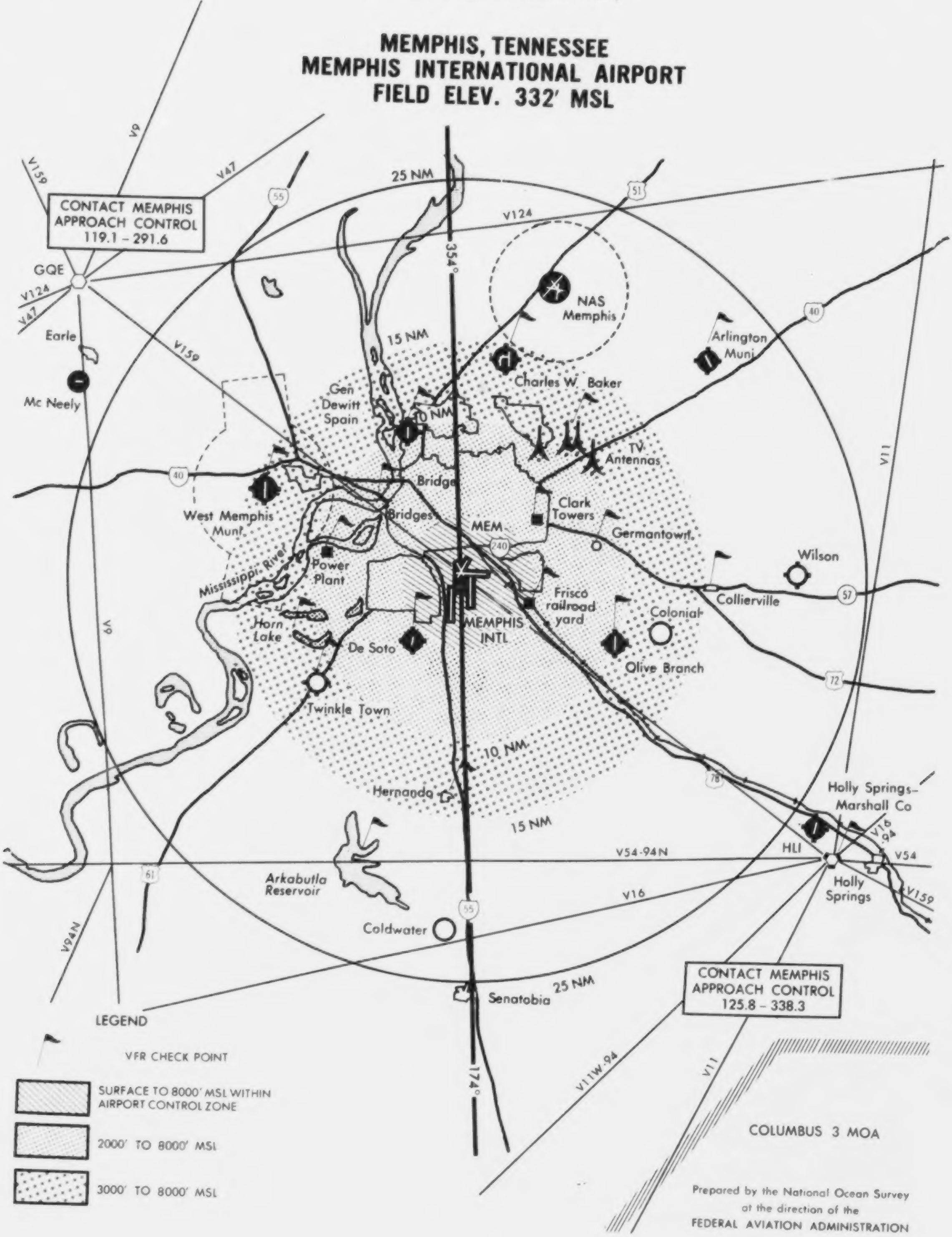
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MEMPHIS, TENNESSEE
MEMPHIS INTERNATIONAL AIRPORT
FIELD ELEV. 332′ MSL


CONTACT MEMPHIS
APPROACH CONTROL
119.1 – 291.6
V9
V159
V47
GQE
V124
V47
55
25 NM
51
V124
354°
NAS
Memphis
40
Arlington
Muni
Earle
V159
15 NM
Charles W. Baker
Mc Neely
Gen
Dewitt
Spain
10 NM
TV
Antennas
V11
40
Bridge
West Memphis
Muni
Bridges
Clark
Towers
MEM
Germantown
240
Mississippi River
Power
Plant
Wilson
Frisco
railroad
yard
Collierville
57
Horn
Lake
MEMPHIS
INTL
Colonial
De Soto
Olive Branch
V9
72
Twinkle Town
10 NM
78
Hernando
15 NM
Holly Springs–
Marshall Co
V16
94
V54-94N
HLI
V54
Arkabutla
Reservoir
61
V16
Holly
Springs
V159
V94N
55
Coldwater
CONTACT MEMPHIS
APPROACH CONTROL
125.8 – 338.3
Senatobia
25 NM
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL WITHIN
AIRPORT CONTROL ZONE
2000′ TO 8000′ MSL
3000′ TO 8000′ MSL
V11W-94
V11
174°
COLUMBUS 3 MOA

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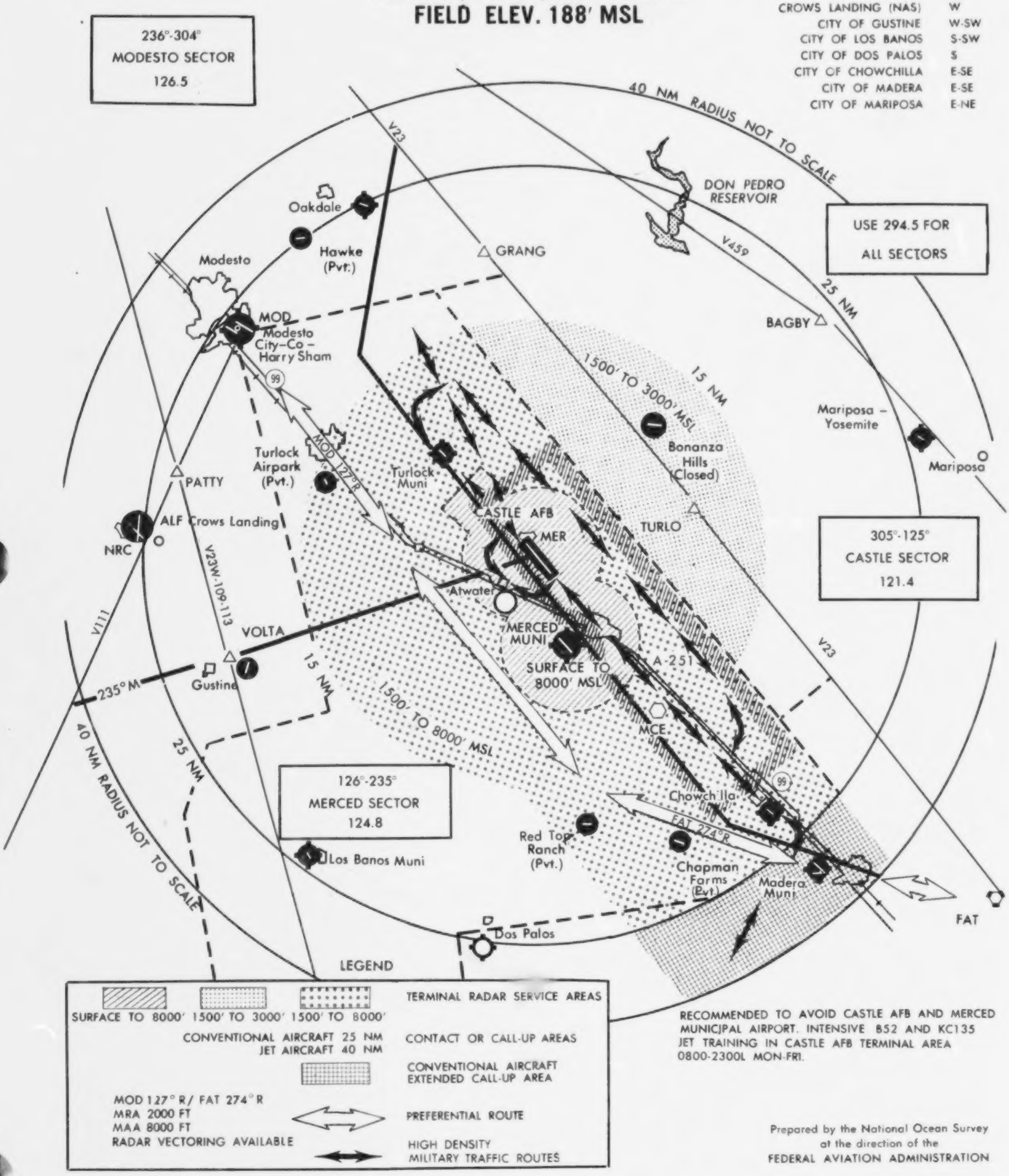
24 JAN 1980

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

MERCED, CALIF., CASTLE AFB
FIELD ELEV. 188′ MSL

DON PEDRO RESERVOIR	N
CITY OF OAKDALE	NW
CITY OF MODESTO	W-NW
CROWS LANDING (NAS)	W
CITY OF GUSTINE	W-SW
CITY OF LOS BANOS	S-SW
CITY OF DOS PALOS	S
CITY OF CHOWCHILLA	E-SE
CITY OF MADERA	E-SE
CITY OF MARIPOSA	E-NE


236°-304°
MODESTO SECTOR
126.5
40 NM RADIUS NOT TO SCALE
V23
Oakdale
Hawke (Pvt.)
GRANG
DON PEDRO RESERVOIR
USE 294.5 FOR ALL SECTORS
V459
25 NM
BAGBY
Modesto
MOD
Modesto City–Co – Harry Sham
99
1500′ TO 3000′ MSL
15 NM
Mariposa – Yosemite
Bonanza Hills (Closed)
Mariposa
Turlock Airpark (Pvt.)
MOD 127°R
Turlock Muni
PATTY
CASTLE AFB
TURLO
ALF Crows Landing
MER
305°-125°
CASTLE SECTOR
121.4
NRC
V23W-109-113
Atwater
V111
VOLTA
MERCED MUNI
SURFACE TO 8000′ MSL
A-251
15 NM
235°M
Gustine
1500′ TO 8000′ MSL
MCE
25 NM
126°-235°
MERCED SECTOR
124.8
Chowchilla
FAT 274°R
Red Top Ranch (Pvt.)
Los Banos Muni
Chapman Farms (Pvt.)
Madera Muni
FAT
Dos Palos
LEGEND
SURFACE TO 8000′
1500′ TO 3000′
1500′ TO 8000′
TERMINAL RADAR SERVICE AREAS
CONVENTIONAL AIRCRAFT 25 NM
JET AIRCRAFT 40 NM
CONTACT OR CALL-UP AREAS
CONVENTIONAL AIRCRAFT EXTENDED CALL-UP AREA
MOD 127° R/ FAT 274° R
MRA 2000 FT
MAA 8000 FT
RADAR VECTORING AVAILABLE
PREFERENTIAL ROUTE
HIGH DENSITY MILITARY TRAFFIC ROUTES

RECOMMENDED TO AVOID CASTLE AFB AND MERCED MUNICIPAL AIRPORT. INTENSIVE B52 AND KC135 JET TRAINING IN CASTLE AFB TERMINAL AREA 0800-2300L MON-FRI.

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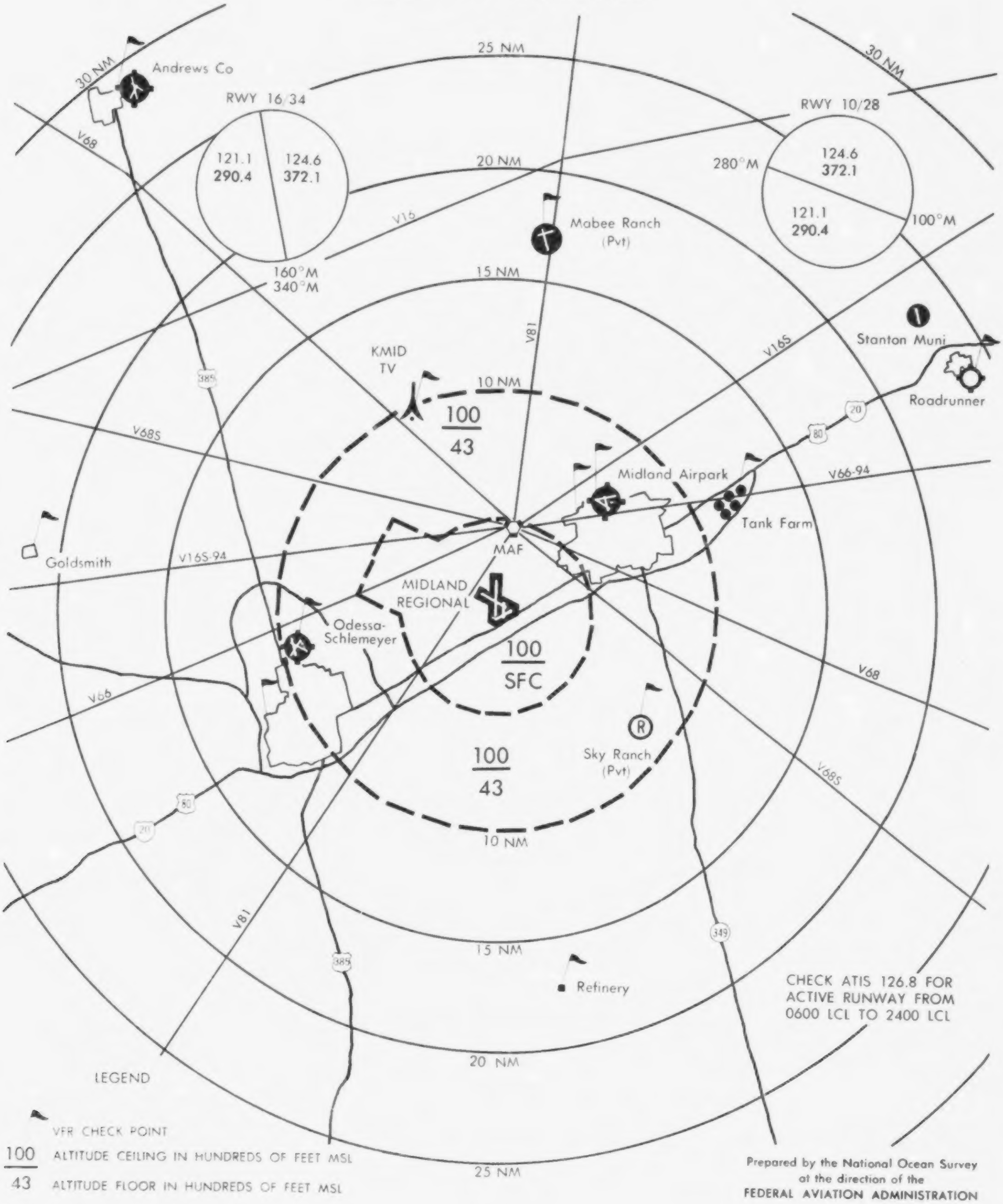
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MIDLAND, TEXAS
MIDLAND REGIONAL AIRPORT
FIELD ELEV 2871' MSL


30 NM
Andrews Co
25 NM
RWY 16/34
121.1
290.4
124.6
372.1
160°M
340°M
RWY 10/28
280°M
124.6
372.1
121.1
290.4
100°M
30 NM
20 NM
15 NM
10 NM
V68
V15
V81
Mabee Ranch
(Pvt)
Stanton Muni
Roadrunner
V16S
KMID
TV
385
20
80
100
43
V68S
Midland Airpark
V66-94
Tank Farm
Goldsmith
V16S-94
MAF
MIDLAND
REGIONAL
Odessa-
Schlemeyer
100
SFC
V68
V66
Sky Ranch
(Pvt)
100
43
V68S
10 NM
80
20
V81
349
15 NM
385
Refinery
20 NM
25 NM

CHECK ATIS 126.8 FOR ACTIVE RUNWAY FROM 0600 LCL TO 2400 LCL

LEGEND

VFR CHECK POINT

100	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
43	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

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at the direction of the
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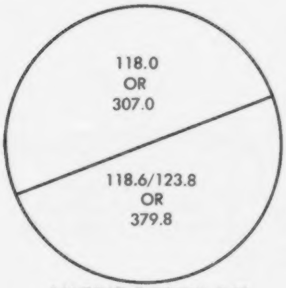
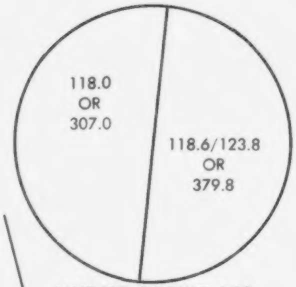
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

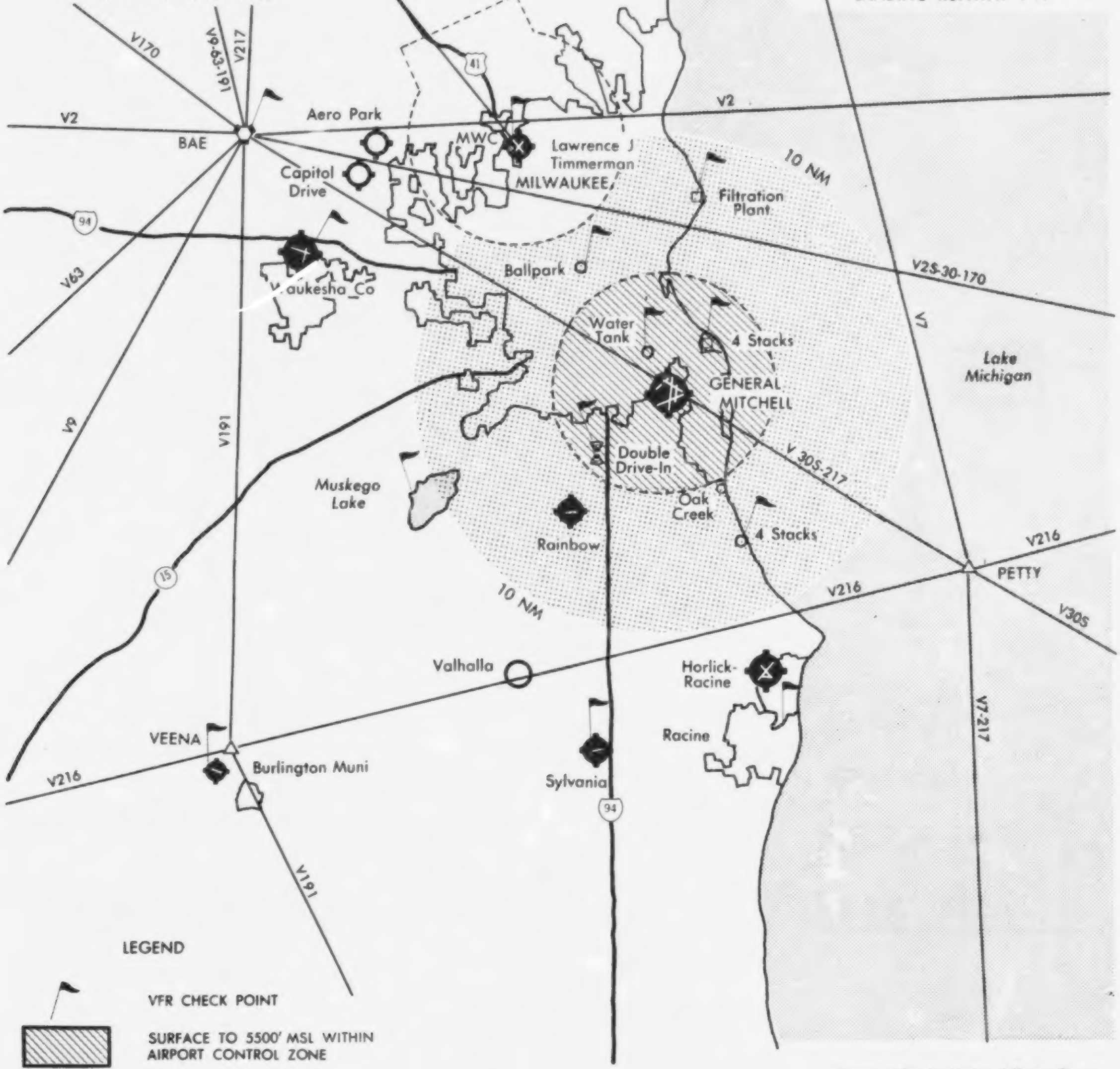
MILWAUKEE, WISCONSIN
GENERAL MITCHELL FIELD
FIELD ELEV. 723' MSL


118.0
OR
307.0
118.6/123.8
OR
379.8

LANDING RUNWAY 7-25


118.0
OR
307.0
118.6/123.8
OR
379.8

LANDING RUNWAY 1-19


V82
V170
V6-63-191
V217
41
V2
Aero Park
BAE
MWC
Lawrence J Timmerman
MILWAUKEE
Capitol Drive
10 NM
Filtration Plant
94
V63
Waukesha Co
Ballpark
V2S-30-170
V7
Water Tank
4 Stacks
Lake Michigan
GENERAL MITCHELL
V9
V191
Double Drive-In
V 30S-217
Muskego Lake
Oak Creek
Rainbow
4 Stacks
V216
PETTY
10 NM
15
V216
V30S
Valhalla
Horlick-Racine
VEENA
Racine
V7-217
V216
Burlington Muni
Sylvania
94
V191

LEGEND

VFR CHECK POINT

▨ SURFACE TO 5500' MSL WITHIN AIRPORT CONTROL ZONE

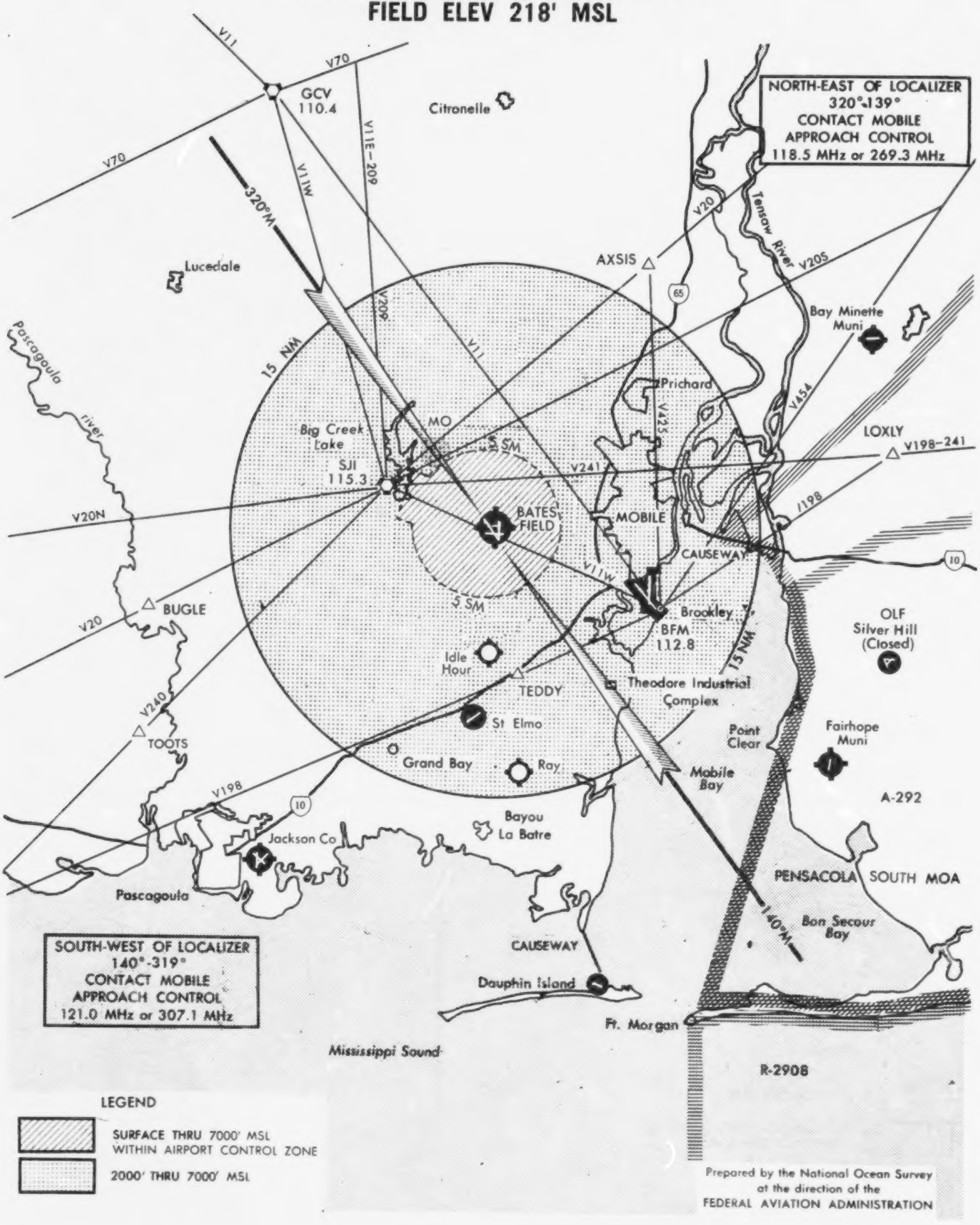
░ 3000' MSL TO 5500' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MOBILE, ALABAMA, BATES FIELD
FIELD ELEV 218' MSL


V11
V70
GCV
110.4
Citronelle
V11E-209
V11W
320°M
V70
V20
Tensaw River
V205
AXSIS
65
Lucedale
Bay Minette Muni
V209
15 NM
V11
Pascagoula river
Prichard
V454
V425
MO
Big Creek Lake
5 SM
LOXLY
V198-241
SJI
115.3
V241
V20N
BATES FIELD
MOBILE
V198
CAUSEWAY
10
V11W
BUGLE
5 SM
Brookley
BFM
112.8
15 NM
OLF
Silver Hill
(Closed)
V20
Idle Hour
TEDDY
Theodore Industrial Complex
V240
St Elmo
Point Clear
Fairhope Muni
TOOTS
Grand Bay
Ray
Mobile Bay
V198
10
A-292
Bayou La Batre
Jackson Co
PENSACOLA SOUTH MOA
Pascagoula
140°M
Bon Secour Bay
CAUSEWAY
Dauphin Island
Ft. Morgan
Mississippi Sound
R-2908

NORTH-EAST OF LOCALIZER
320°-139°
CONTACT MOBILE
APPROACH CONTROL
118.5 MHz or 269.3 MHz

SOUTH-WEST OF LOCALIZER
140°-319°
CONTACT MOBILE
APPROACH CONTROL
121.0 MHz or 307.1 MHz

LEGEND

▨ SURFACE THRU 7000' MSL WITHIN AIRPORT CONTROL ZONE

░ 2000' THRU 7000' MSL

Prepared by the National Ocean Survey
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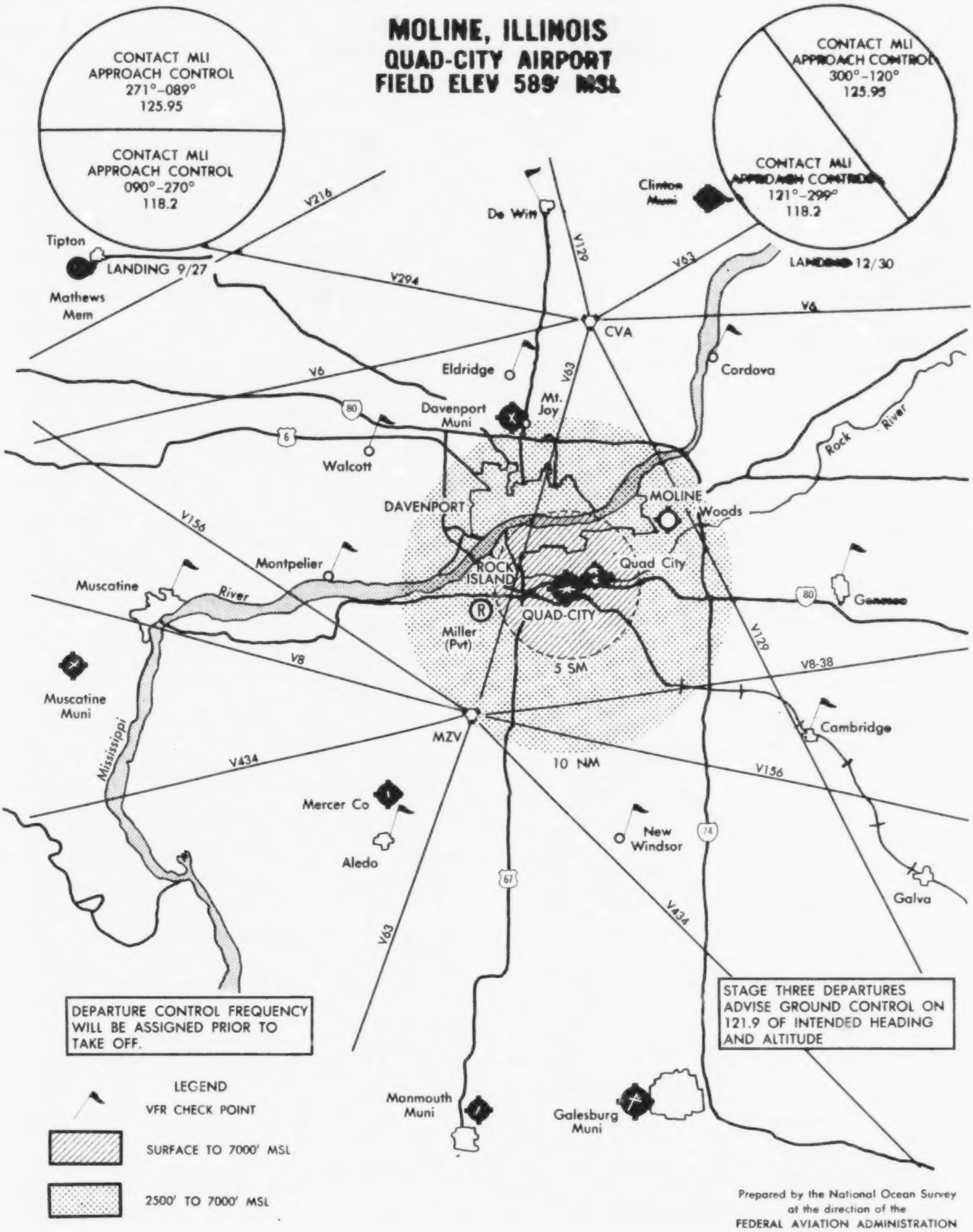
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MOLINE, ILLINOIS
QUAD-CITY AIRPORT
FIELD ELEV 589' MSL


CONTACT MLI
APPROACH CONTROL
271°-089°
125.95
CONTACT MLI
APPROACH CONTROL
090°-270°
118.2
CONTACT MLI
APPROACH CONTROL
300°-120°
125.95
CONTACT MLI
APPROACH CONTROL
121°-299°
118.2
Tipton
LANDING 9/27
Mathews
Mem
LANDING 12/30
V216
V294
V129
V63
V6
De Witt
Clinton
Muni
CVA
Eldridge
Cordova
Davenport
Muni
Mt.
Joy
80
6
Walcott
Rock
River
DAVENPORT
MOLINE
Woods
V156
Montpelier
Muscatine
River
ROCK
ISLAND
Quad City
QUAD-CITY
R
Miller
(Pvt)
80
Geneseo
5 SM
V8
V8-38
Muscatine
Muni
MZV
Cambridge
V434
10 NM
V156
Mississippi
Mercer Co
New
Windsor
74
Aledo
67
Galva
V434
V63
V129
Monmouth
Muni
Galesburg
Muni

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF.

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDED HEADING AND ALTITUDE

LEGEND

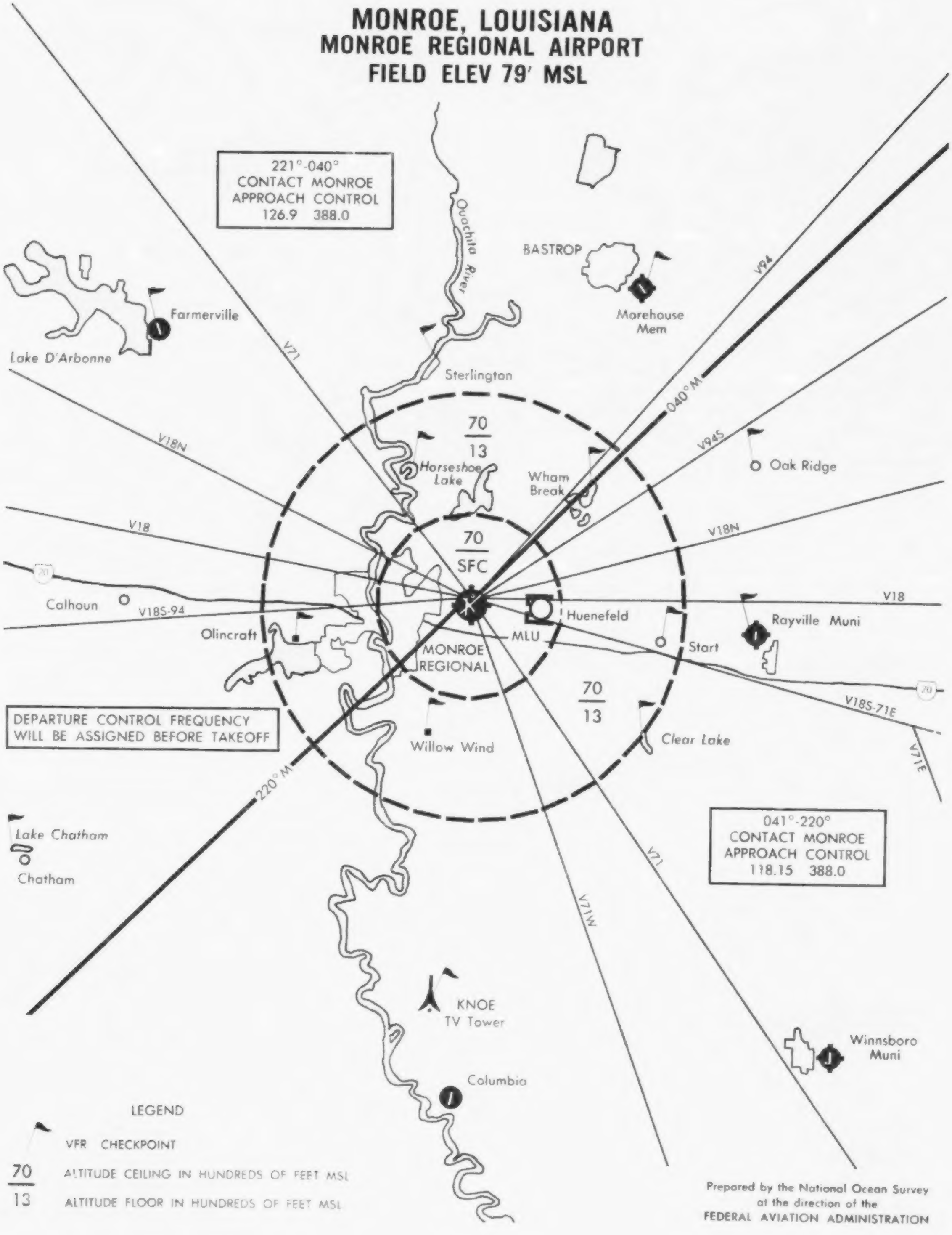
⚑	VFR CHECK POINT
▨	SURFACE TO 7000' MSL
░	2500' TO 7000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MONROE, LOUISIANA
MONROE REGIONAL AIRPORT
FIELD ELEV 79′ MSL


221°-040°
CONTACT MONROE
APPROACH CONTROL
126.9 388.0
Ouachita River
BASTROP
Morehouse Mem
Farmerville
Lake D'Arbonne
V71
V94
Sterlington
040° M
V94S
Oak Ridge
V18N
70
13
Horseshoe Lake
Wham Break
70
SFC
V18
V18N
20
Calhoun
V18S-94
Olincraft
Huenefeld
MLU
Start
V18
Rayville Muni
MONROE REGIONAL
70
13
V18S-71E
20
DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKEOFF
Willow Wind
Clear Lake
V71E
220° M
Lake Chatham
Chatham
041°-220°
CONTACT MONROE
APPROACH CONTROL
118.15 388.0
V71
V71W
KNOE
TV Tower
Winnsboro Muni
Columbia
LEGEND
VFR CHECKPOINT
70 ALTITUDE CEILING IN HUNDREDS OF FEET MSL
13 ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
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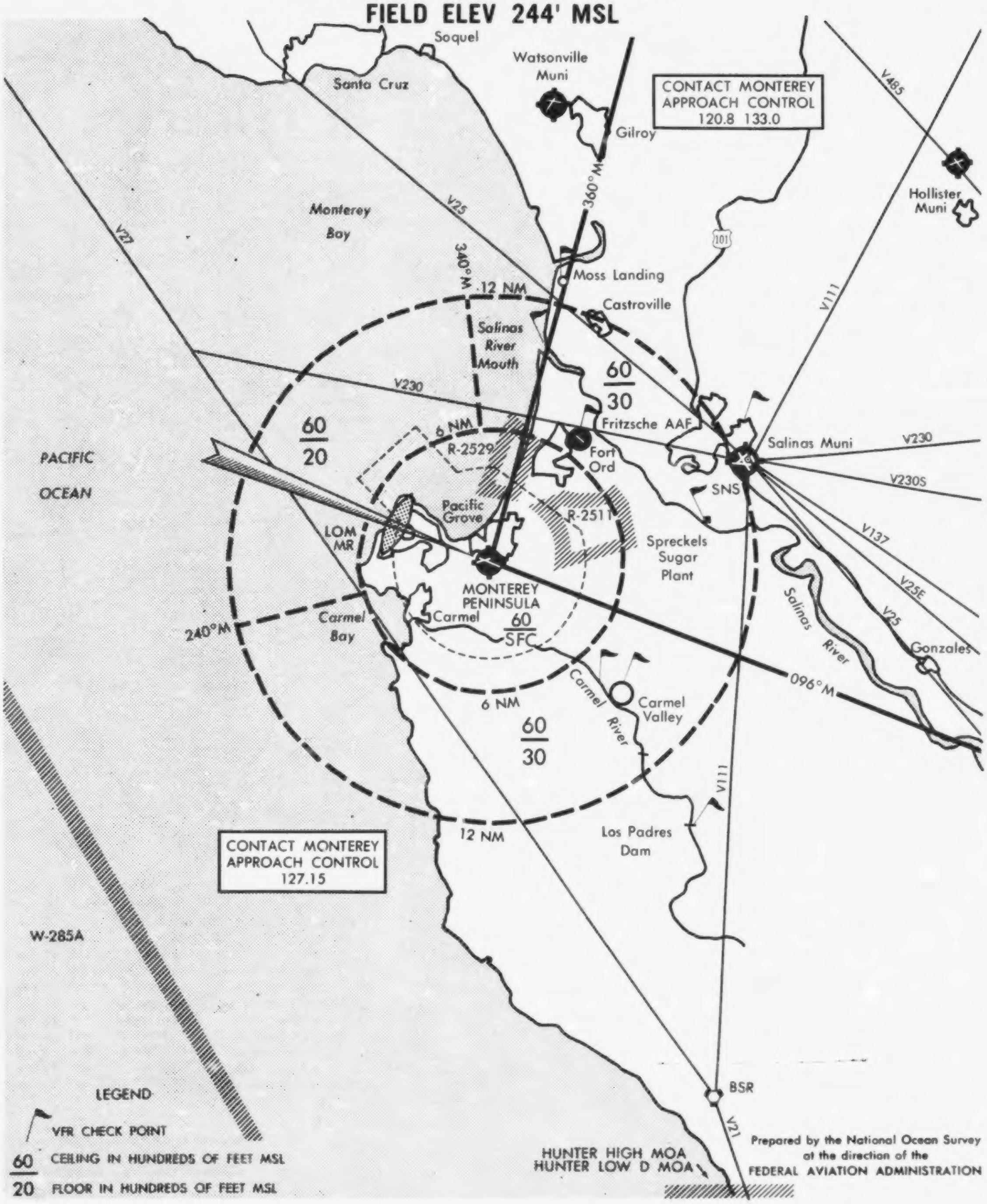
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MONTEREY, CALIFORNIA
MONTEREY PENINSULA AIRPORT
FIELD ELEV 244' MSL

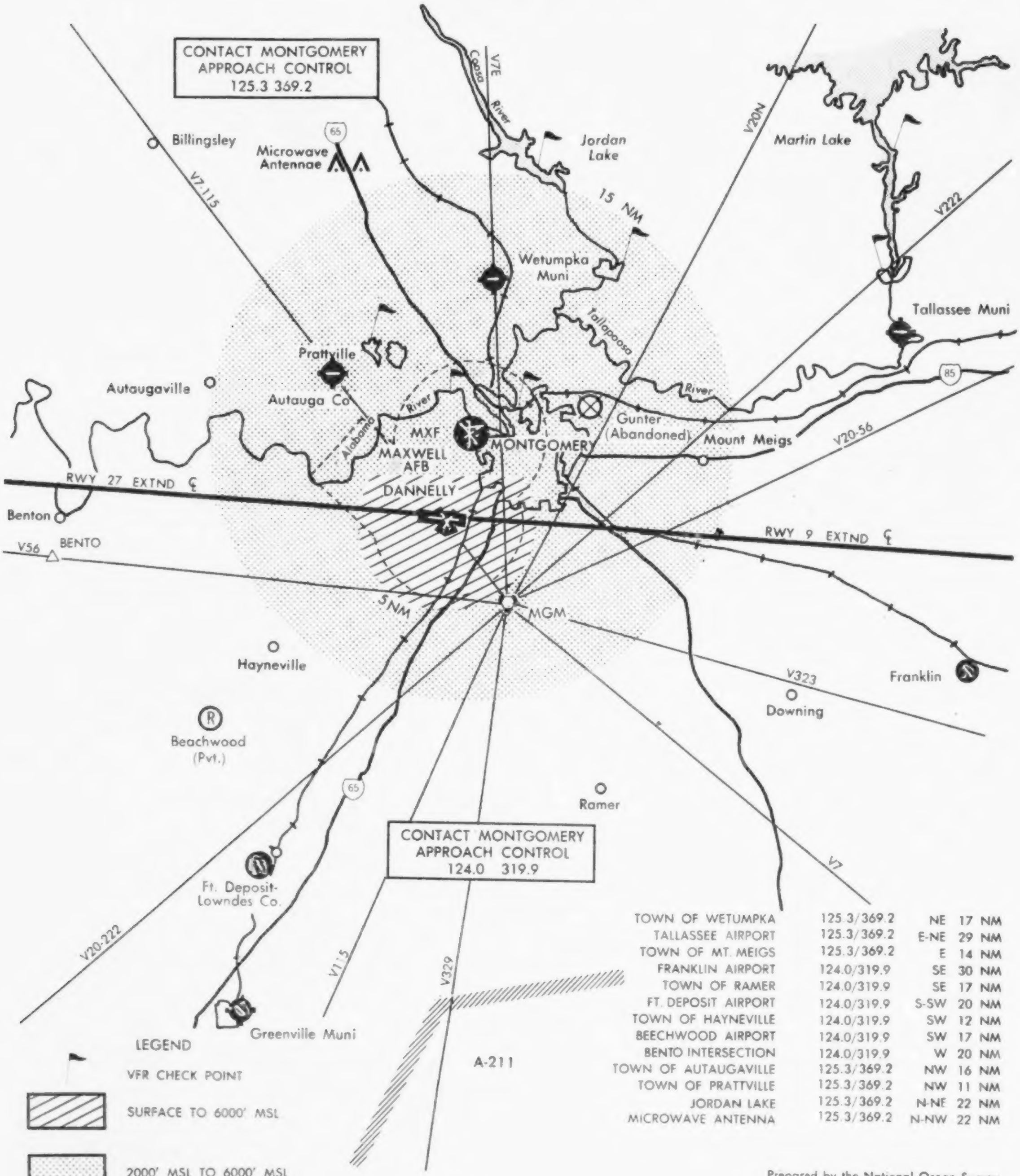

Soquel
Santa Cruz
Watsonville Muni
Gilroy
CONTACT MONTEREY APPROACH CONTROL 120.8 133.0
V485
Hollister Muni
101
360°M
Monterey Bay
V25
V27
340°M
12 NM
Moss Landing
Castroville
V111
Salinas River Mouth
60/30
V230
6 NM
Fritzsche AAF
Fort Ord
Salinas Muni
V230
V230S
SNS
R-2529
60/20
PACIFIC OCEAN
Pacific Grove
R-2511
LOM MR
Spreckels Sugar Plant
V137
V25E
MONTEREY PENINSULA
60/SFC
Salinas River
V25
Gonzales
240°M
Carmel Bay
Carmel
096°M
Carmel River
Carmel Valley
6 NM
60/30
V111
12 NM
Los Padres Dam
CONTACT MONTEREY APPROACH CONTROL 127.15
W-285A
BSR
V21
HUNTER HIGH MOA
HUNTER LOW D MOA
LEGEND
VFR CHECK POINT
60 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

14 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MONTGOMERY, ALABAMA, DANNELLY AIRPORT
FIELD ELEV 221′ MSL


CONTACT MONTGOMERY APPROACH CONTROL 125.3 369.2
Billingsley
Microwave Antennae
65
V7E
Coosa River
Jordan Lake
V20N
Martin Lake
V222
V7-115
15 NM
Wetumpka Muni
Tallapoosa
Tallassee Muni
Prattville
Autaugaville
Autauga Co
River
Alabama
85
Gunter (Abandoned)
Mount Meigs
V20-56
MXF
MAXWELL AFB
MONTGOMERY
DANNELLY
RWY 27 EXTND ℄
Benton
RWY 9 EXTND ℄
V56
BENTO
5 NM
MGM
Hayneville
V323
Franklin
Downing
Beachwood (Pvt.)
65
Ramer
CONTACT MONTGOMERY APPROACH CONTROL 124.0 319.9
V7
Ft. Deposit-Lowndes Co.
V20-222
V115
V329
Greenville Muni
A-211
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
2000′ MSL TO 6000′ MSL

TOWN OF WETUMPKA	125.3/369.2	NE	17 NM
TALLASSEE AIRPORT	125.3/369.2	E-NE	29 NM
TOWN OF MT. MEIGS	125.3/369.2	E	14 NM
FRANKLIN AIRPORT	124.0/319.9	SE	30 NM
TOWN OF RAMER	124.0/319.9	SE	17 NM
FT. DEPOSIT AIRPORT	124.0/319.9	S-SW	20 NM
TOWN OF HAYNEVILLE	124.0/319.9	SW	12 NM
BEECHWOOD AIRPORT	124.0/319.9	SW	17 NM
BENTO INTERSECTION	124.0/319.9	W	20 NM
TOWN OF AUTAUGAVILLE	125.3/369.2	NW	16 NM
TOWN OF PRATTVILLE	125.3/369.2	NW	11 NM
JORDAN LAKE	125.3/369.2	N-NE	22 NM
MICROWAVE ANTENNA	125.3/369.2	N-NW	22 NM

Prepared by the National Ocean Survey
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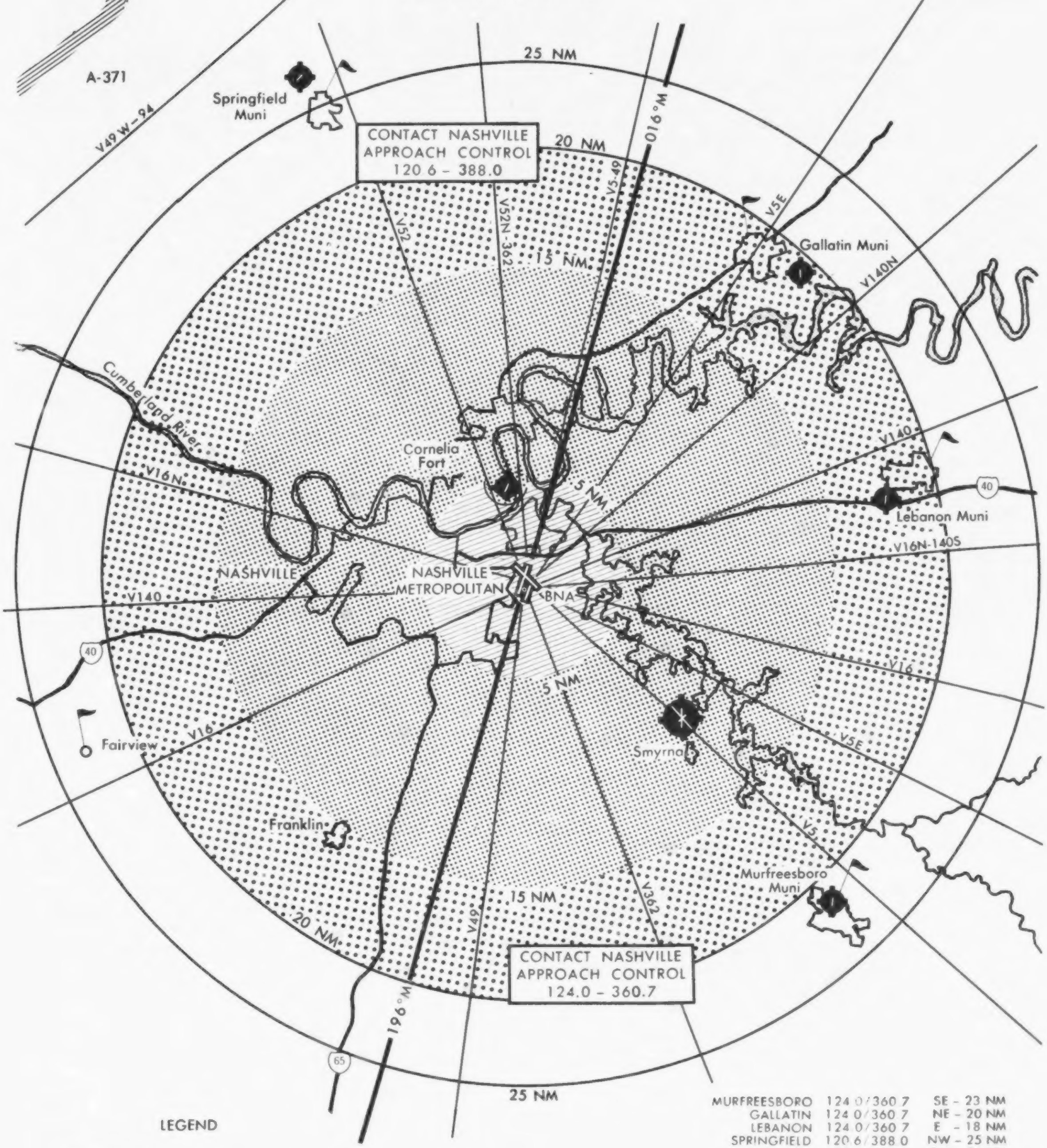
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

NASHVILLE, TENNESSEE, NASHVILLE METRO. AIRPORT

FIELD ELEV. 599′ MSL


A-371
V49 W-94
Springfield Muni
25 NM
20 NM
15 NM
5 NM
CONTACT NASHVILLE APPROACH CONTROL 120.6 - 388.0
016°M
V5-49
V52
V52N-362
V5E
Gallatin Muni
V140N
Cumberland River
Cornelia Fort
V16N
V140
40
Lebanon Muni
V16N-140S
NASHVILLE
NASHVILLE METROPOLITAN
BNA
V16
V5E
Fairview
Smyrna
V5
Franklin
Murfreesboro Muni
V362
V49
196°M
20 NM
15 NM
CONTACT NASHVILLE APPROACH CONTROL 124.0 - 360.7
65
25 NM

MURFREESBORO	124.0/360.7	SE - 23 NM
GALLATIN	124.0/360.7	NE - 20 NM
LEBANON	124.0/360.7	E - 18 NM
SPRINGFIELD	120.6/388.0	NW - 25 NM
FAIRVIEW	120.6/388.0	SW - 24 NM

LEGEND

▨ SURFACE TO 10000′ MSL

▒ 2000′ TO 10000′ MSL

⁚ 4000′ TO 10000′ MSL

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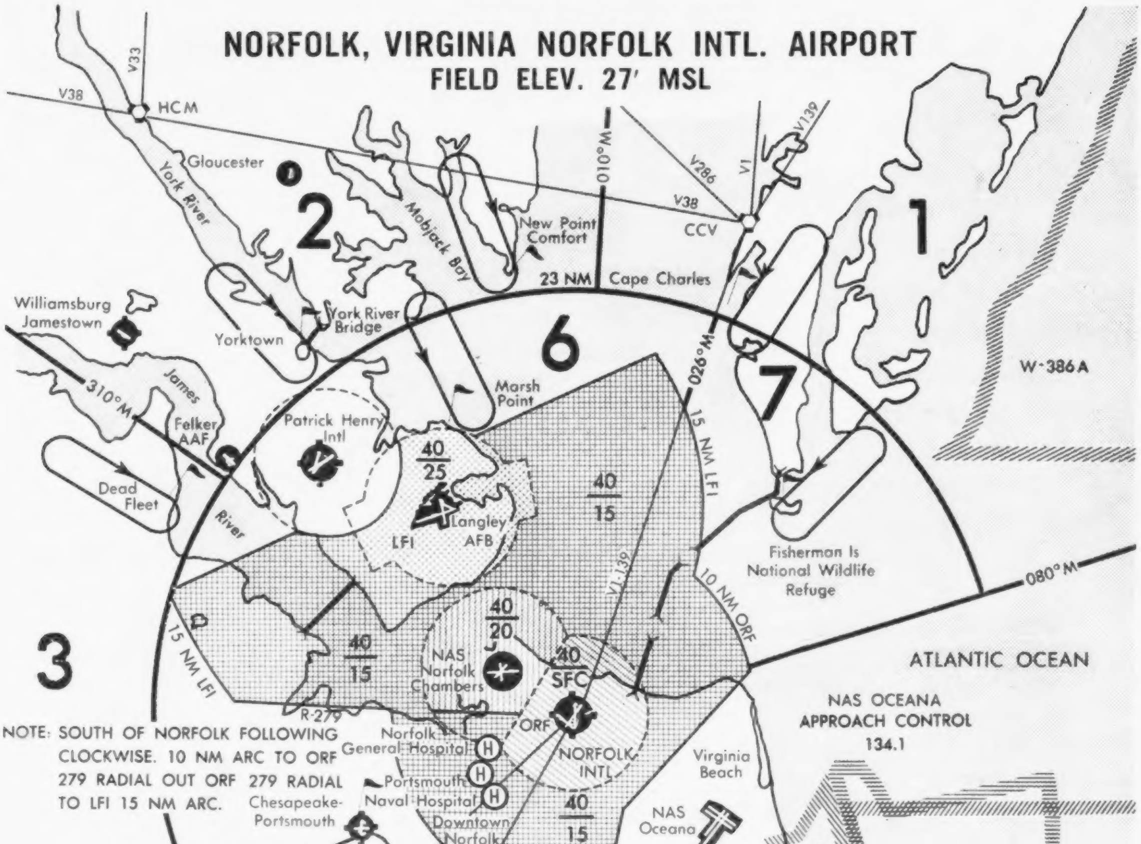
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA NORFOLK INTL. AIRPORT
FIELD ELEV. 27′ MSL


V33
V38
HCM
Gloucester
York River
2
Mobjack Bay
010°M
V139
V286
V1
V38
CCV
New Point Comfort
1
23 NM
Cape Charles
Williamsburg Jamestown
York River Bridge
Yorktown
6
026°M
James
310°M
Marsh Point
7
W-386A
Felker AAF
Patrick Henry Intl
15 NM LFI
Dead Fleet
River
40/25
40/15
LFI
Langley AFB
V1-139
Fisherman Is National Wildlife Refuge
10 NM ORF
080°M
3
40/20
15 NM LFI
40/15
NAS Norfolk Chambers
40/SFC
ATLANTIC OCEAN
NAS OCEANA APPROACH CONTROL 134.1
R-279
ORF
Norfolk General Hospital
NORFOLK INTL
Virginia Beach
Portsmouth Naval Hospital
Chesapeake-Portsmouth
40/15
NAS Oceana
Downtown Norfolk
R-6606
South Norfolk
10 NM ORF
Suffolk
Great Bridge
ALF Fentress
W-50
250°M
5
W-72 A
Creeds (Pvt.)
Lake Drummond
Moyock Race Track
4
V1
V139
23 NM
180°M
V290
Elizabeth City CGAB/Muni

NOTE: SOUTH OF NORFOLK FOLLOWING CLOCKWISE. 10 NM ARC TO ORF 279 RADIAL OUT ORF 279 RADIAL TO LFI 15 NM ARC.

LEGEND

- VFR CHECK POINT AND/OR HOLDING POINT
- ▨ SURFACE TO 4000′ MSL WITHIN AIRPORT CONTROL ZONE
- ▨ 1500′ MSL TO 4000′ MSL
- ▨ 2000′ MSL TO 4000′ MSL
- ▨ 2500′ MSL TO 4000′ MSL

NORFOLK APPROACH CONTROL FREQUENCIES BEYOND 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
1.	126.05/372.1
2.	119.45/360.6
3.	132.35/353.7
4.	127.9 /249.9

WITHIN 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
5.	118.9/257.3
6.	124.9/379.1
7.	118.9 /257.3

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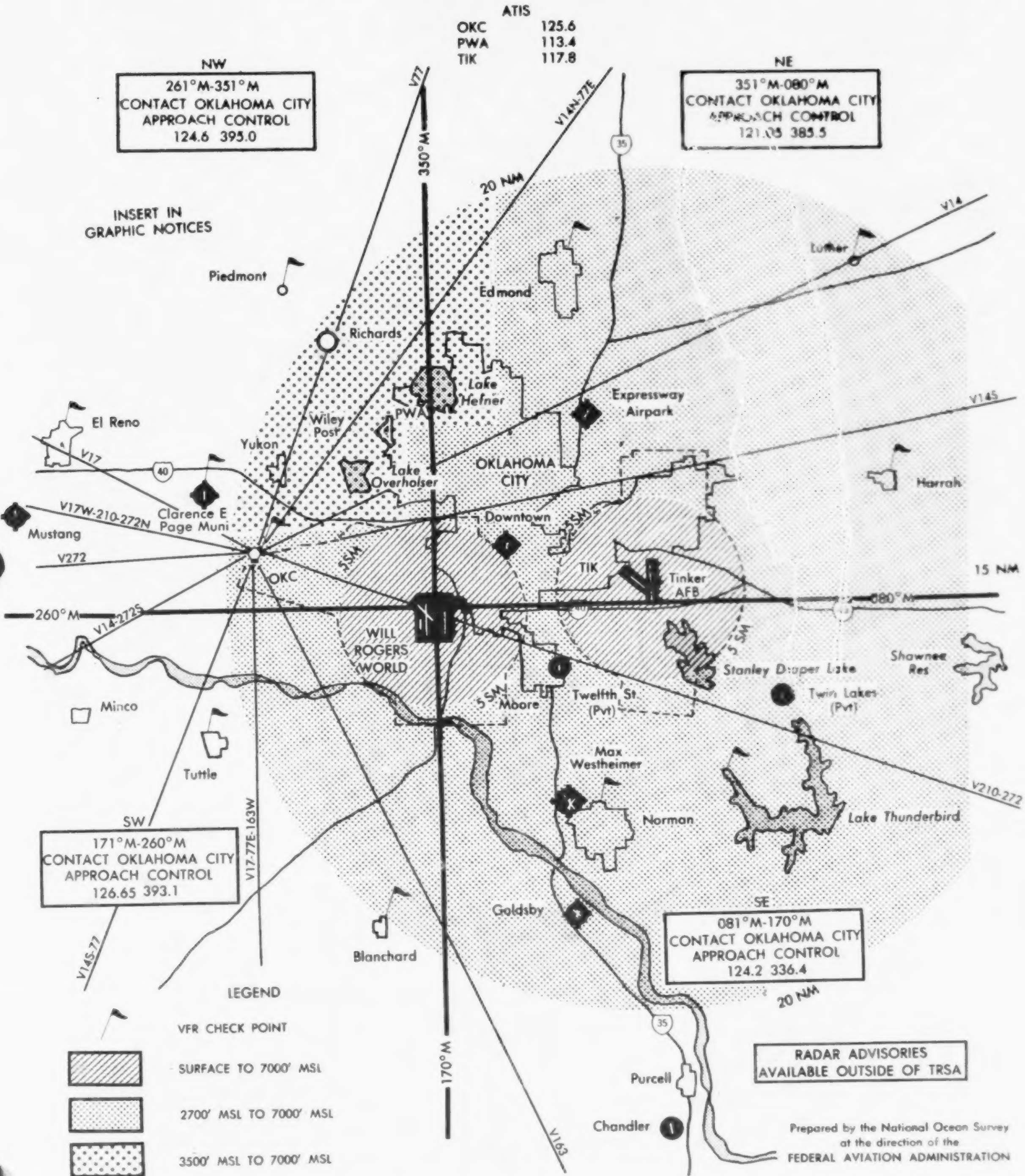
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

OKLAHOMA CITY, OKLAHOMA WILL ROGERS WORLD AIRPORT
FIELD ELEV. 1294′ MSL


ATIS
OKC 125.6
PWA 113.4
TIK 117.8
NW
261°M-351°M
CONTACT OKLAHOMA CITY APPROACH CONTROL
124.6 395.0
NE
351°M-080°M
CONTACT OKLAHOMA CITY APPROACH CONTROL
121.05 385.5
SW
171°M-260°M
CONTACT OKLAHOMA CITY APPROACH CONTROL
126.65 393.1
SE
081°M-170°M
CONTACT OKLAHOMA CITY APPROACH CONTROL
124.2 336.4
INSERT IN GRAPHIC NOTICES
V77
V14N-77E
350°M
20 NM
35
V14
Luther
Piedmont
Edmond
Richards
Lake Hefner
Expressway Airpark
V145
El Reno
Wiley Post
PWA
Yukon
V17
40
Lake Overholser
OKLAHOMA CITY
Harrah
Clarence E Page Muni
Mustang
V17W-210-272N
Downtown
5SM
V272
OKC
TIK
Tinker AFB
15 NM
260°M
080°M
V14-272S
WILL ROGERS WORLD
Stanley Draper Lake
Shawnee Res
Minco
Moore
Twelfth St. (Pvt)
Twin Lakes (Pvt)
Tuttle
Max Westheimer
Norman
Lake Thunderbird
V210-272
V17-77E-163W
Goldsby
V145-77
Blanchard
20 NM
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
2700′ MSL TO 7000′ MSL
3500′ MSL TO 7000′ MSL
170°M
35
Purcell
Chandler
V163
RADAR ADVISORIES AVAILABLE OUTSIDE OF TRSA

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28 JAN 1980

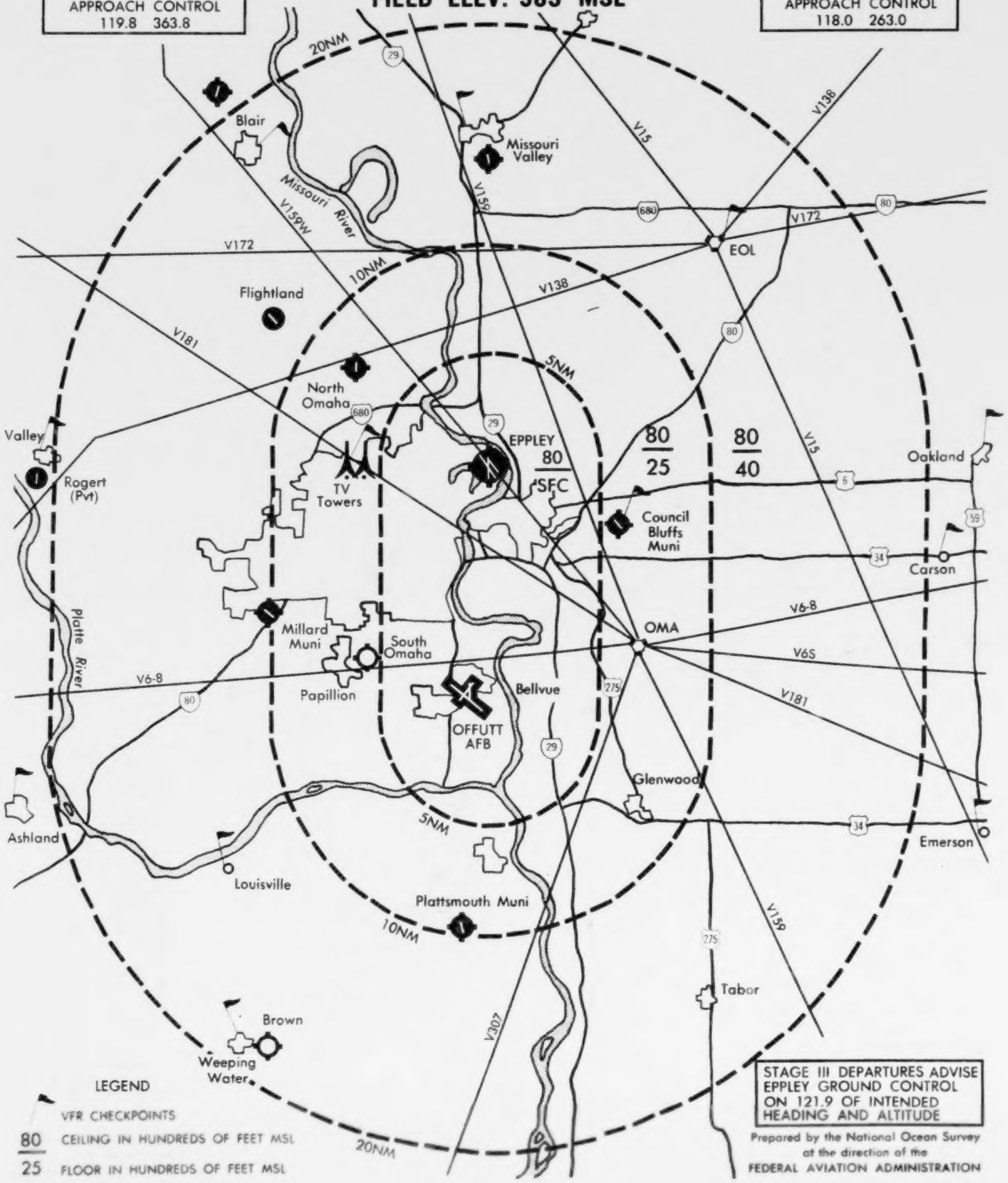
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

OMAHA, NEBRASKA

OFFUTT AFB EPPLEY AIRFIELD
FIELD ELEV. 1048' MSL
FIELD ELEV. 983' MSL

WEST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
119.8 363.8

EAST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
118.0 263.0


20NM
29
Blair
Missouri Valley
Missouri River
V159W
V159
V15
V138
680
80
V172
EOL
10NM
Flightland
V138
V181
5NM
North Omaha
680
29
EPPLEY
80
SFC
80
25
80
40
Valley
Rogert (Pvt)
TV Towers
Oakland
6
59
Council Bluffs Muni
34
Carson
Platte River
Millard Muni
South Omaha
OMA
V6-8
V6S
V6-8
80
Papillion
OFFUTT AFB
Bellvue
275
V181
29
Glenwood
Ashland
5NM
34
Emerson
Louisville
Plattsmouth Muni
10NM
V159
275
Tabor
V307
Brown
Weeping Water
20NM

LEGEND

VFR CHECKPOINTS

80	CEILING IN HUNDREDS OF FEET MSL
25	FLOOR IN HUNDREDS OF FEET MSL

STAGE III DEPARTURES ADVISE
EPPLEY GROUND CONTROL
ON 121.9 OF INTENDED
HEADING AND ALTITUDE

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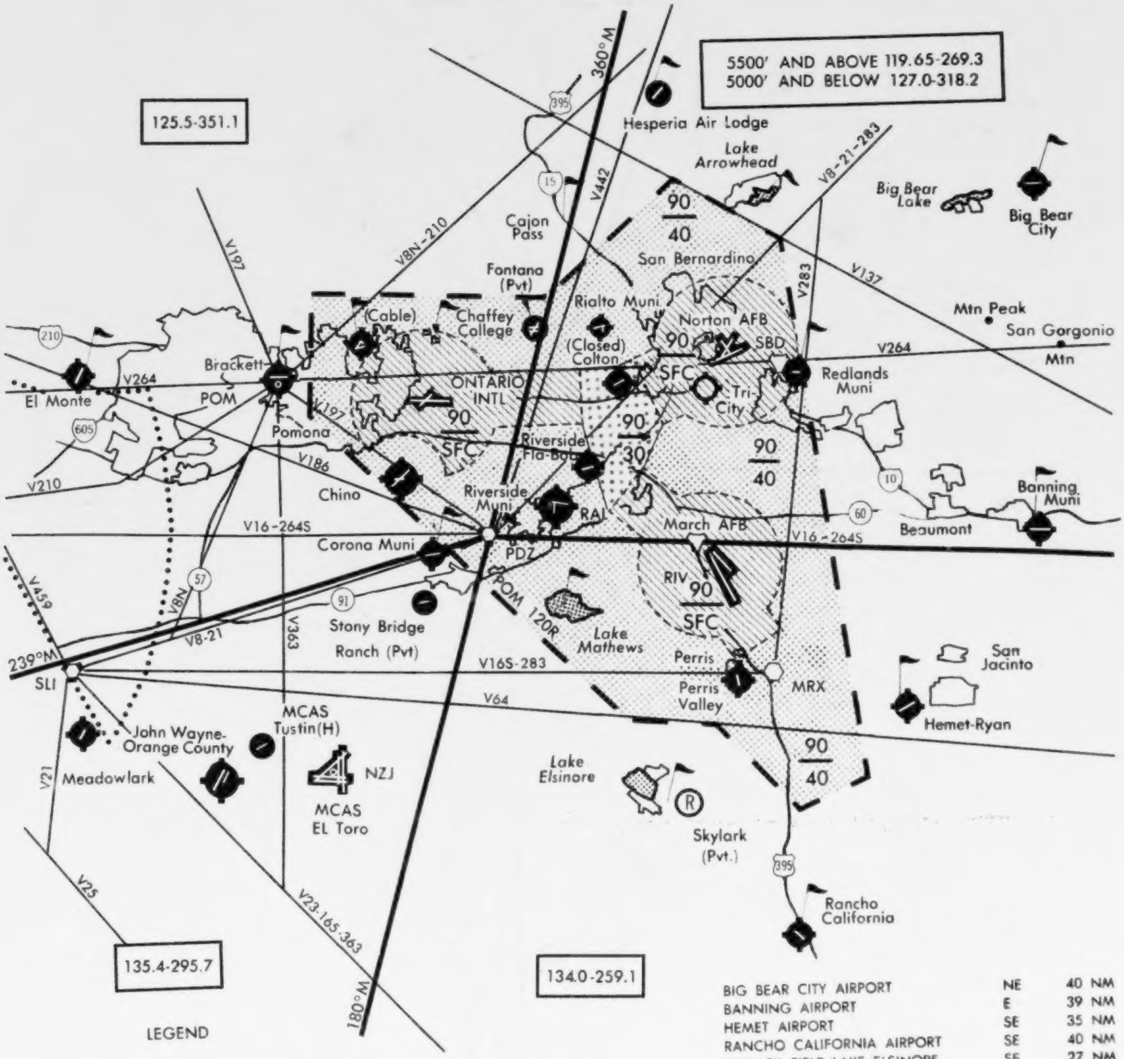
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ONTARIO, CALIFORNIA, ONTARIO INTERNATIONAL
FIELD ELEV 952' MSL


5500' AND ABOVE 119.65-269.3
5000' AND BELOW 127.0-318.2
125.5-351.1
135.4-295.7
134.0-259.1
360°M
180°M
239°M
Hesperia Air Lodge
Lake Arrowhead
Big Bear Lake
Big Bear City
Cajon Pass
Fontana (Pvt)
San Bernardino
Rialto Muni
Norton AFB
SBD
(Cable)
Chaffey College
(Closed) Colton
Redlands Muni
Mtn Peak
San Gorgonio Mtn
Brackett
El Monte
POM
Pomona
ONTARIO INTL
Tri-City
Riverside Fla-Bob
Riverside Muni
RAL
Chino
Corona Muni
PDZ
March AFB
RIV
Beaumont
Banning Muni
Stony Bridge Ranch (Pvt)
Lake Mathews
Perris
Perris Valley
MRX
San Jacinto
Hemet-Ryan
SLI
John Wayne-Orange County
Meadowlark
MCAS Tustin(H)
NZJ
MCAS EL Toro
Lake Elsinore
Skylark (Pvt.)
Rancho California
90/40
90/SFC
90/30
V197
V8N-210
V442
V8-21-283
V137
V283
V264
V186
V210
V16-264S
V16S-283
V64
V459
V8N
V8-21
V363
V21
V25
V23-165-363
POM 120R
395
15
210
605
57
91
10
60

LEGEND

VFR CHECK POINT

▨ SURFACE TO 9000' MSL WITHIN AIRPORT CONTROL ZONE

▦ 3000' MSL-9000' MSL

▒ 4000' MSL-9000' MSL

••••••••• LOS ANGELES TCA

— — TERMINAL RADAR SERVICE AREA

90 CEILING IN HUNDREDS OF FEET MSL

40 FLOOR IN HUNDREDS OF FEET MSL

BIG BEAR CITY AIRPORT	NE	40 NM
BANNING AIRPORT	E	39 NM
HEMET AIRPORT	SE	35 NM
RANCHO CALIFORNIA AIRPORT	SE	40 NM
SKYLARK FIELD/LAKE ELSINORE	SE	27 NM
LAKE MATHEWS	SE	16 NM
CORONA AIRPORT	S	10 NM
EL MONTE AIRPORT	W	22 NM
BRACKETT AIRPORT/POMONA VOR	W	10 NM
CHAFFEY COLLEGE	NE	5 NM
LAKE ARROWHEAD	NE	24 NM
CAJON PASS	NE	13 NM
REDLANDS AIRPORT	E	22 NM
HESPERIA AIR PARK	NE	24 NM
CABLE AIRPORT	NW	5 NM
ONTARIO VOR	SE	9 NM

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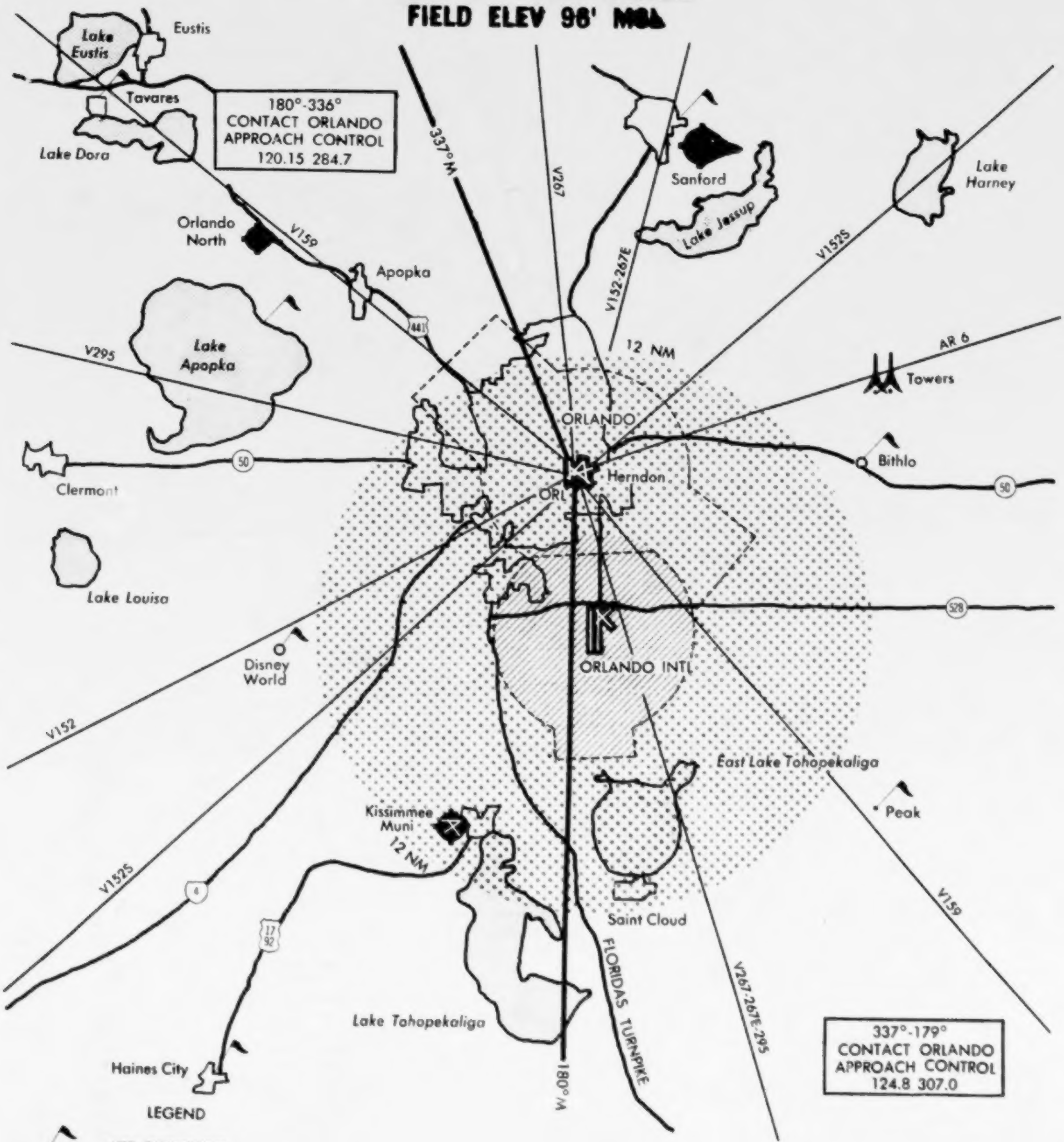
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ORLANDO, FLORIDA
ORLANDO INTERNATIONAL
FIELD ELEV 96' MSL


Lake Eustis
Eustis
Tavares
Lake Dora
180°-336°
CONTACT ORLANDO
APPROACH CONTROL
120.15 284.7
337°M
V267
Sanford
Lake Jessup
V152-267E
Lake Harney
V152S
Orlando North
V159
Apopka
441
Lake Apopka
V295
12 NM
AR 6
Towers
ORLANDO
Herndon
ORL
Bithlo
50
Clermont
Lake Louisa
528
ORLANDO INTL
Disney World
V152
East Lake Tohopekaliga
Peak
Kissimmee Muni
12 NM
V152S
4
17
92
Saint Cloud
FLORIDAS TURNPIKE
V267-267E-295
V159
Lake Tohopekaliga
180°M
337°-179°
CONTACT ORLANDO
APPROACH CONTROL
124.8 307.0
Haines City

LEGEND

VFR CHECKPOINT

▨ SURFACE TO 10,000' MSL

⬚ 1600' TO 10,000' MSL

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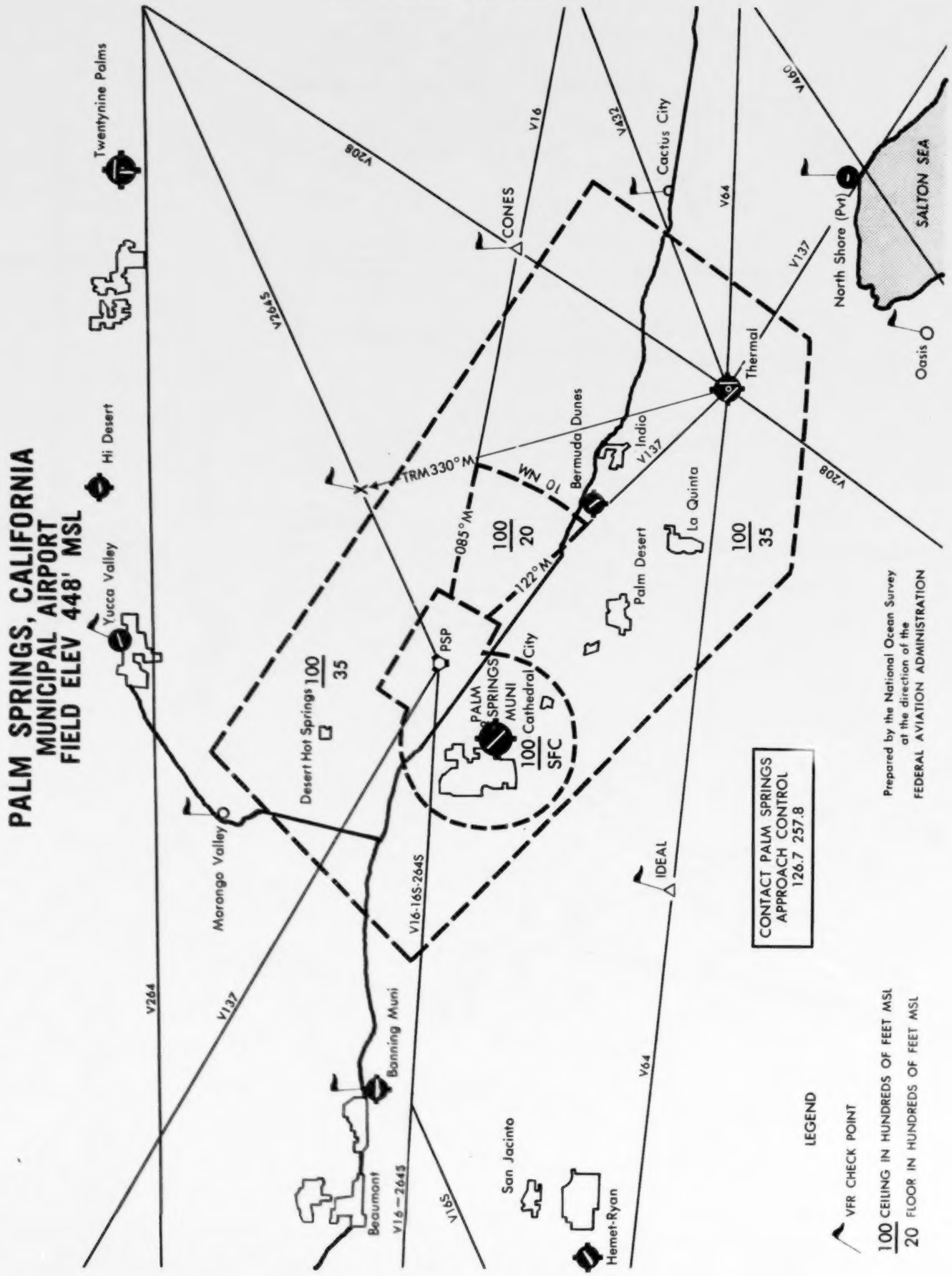
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PALM SPRINGS, CALIFORNIA
MUNICIPAL AIRPORT
FIELD ELEV 448' MSL


Twentynine Palms
Hi Desert
Yucca Valley
Morongo Valley
Banning Muni
Beaumont
San Jacinto
Hemet-Ryan
Desert Hot Springs
PSP
PALM SPRINGS MUNI
Cathedral City
Palm Desert
La Quinta
Bermuda Dunes
Indio
Thermal
Cactus City
CONES
IDEAL
North Shore (Pvt)
Oasis
SALTON SEA
V264
V137
V16-165-264S
V16-264S
V165
V64
V264S
V208
V16
V432
V460
TRM 330°M
085°M
122°M
10 NM
100/SFC
100/20
100/35

CONTACT PALM SPRINGS
APPROACH CONTROL
126.7 257.8

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

LEGEND

- VFR CHECK POINT
- $\frac{100}{20}$ 100 CEILING IN HUNDREDS OF FEET MSL; 20 FLOOR IN HUNDREDS OF FEET MSL

17 DEC 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PENSACOLA, FLORIDA

PENSACOLA REGIONAL AIRPORT

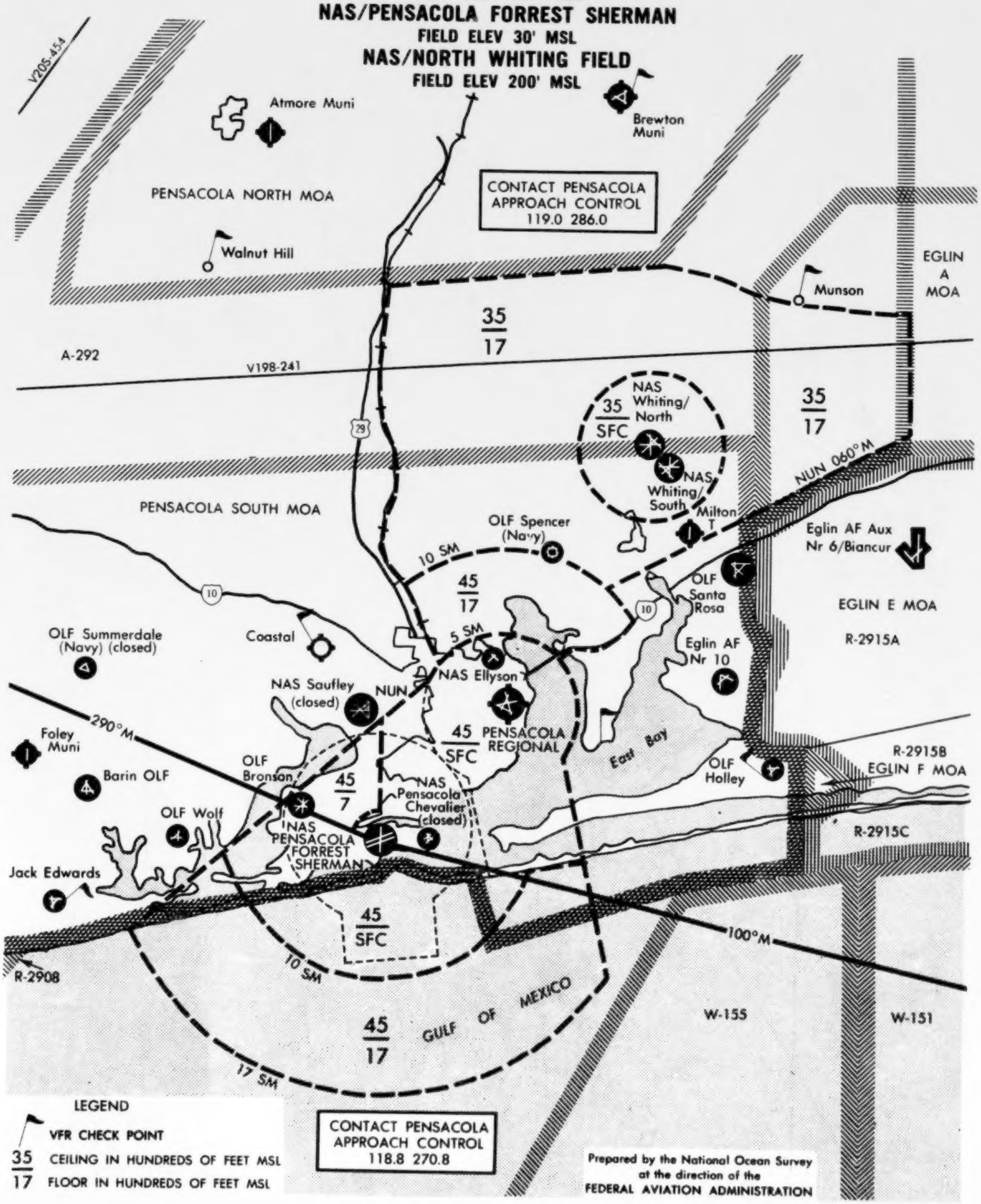
FIELD ELEV 121' MSL

NAS/PENSACOLA FORREST SHERMAN

FIELD ELEV 30' MSL

NAS/NORTH WHITING FIELD

FIELD ELEV 200' MSL


V205-454
Atmore Muni
Brewton Muni
PENSACOLA NORTH MOA
CONTACT PENSACOLA APPROACH CONTROL 119.0 286.0
Walnut Hill
Munson
EGLIN A MOA
35/17
A-292
V198-241
29
NAS Whiting/North
35/SFC
NAS Whiting/South
35/17
NUN 060°M
PENSACOLA SOUTH MOA
OLF Spencer (Navy)
Milton T
Eglin AF Aux Nr 6/Biancur
10 SM
45/17
10
10
OLF Santa Rosa
EGLIN E MOA
R-2915A
OLF Summerdale (Navy) (closed)
Coastal
5 SM
Eglin AF Nr 10
NAS Ellyson
NAS Saufley (closed)
NUN
Foley Muni
290°M
45/SFC
PENSACOLA REGIONAL
East Bay
OLF Holley
R-2915B
EGLIN F MOA
Barin OLF
OLF Bronson
45/7
NAS Pensacola Chevalier (closed)
OLF Wolf
NAS PENSACOLA FORREST SHERMAN
R-2915C
Jack Edwards
45/SFC
100°M
R-2908
10 SM
GULF OF MEXICO
W-155
W-151
45/17
17 SM

LEGEND

VFR CHECK POINT

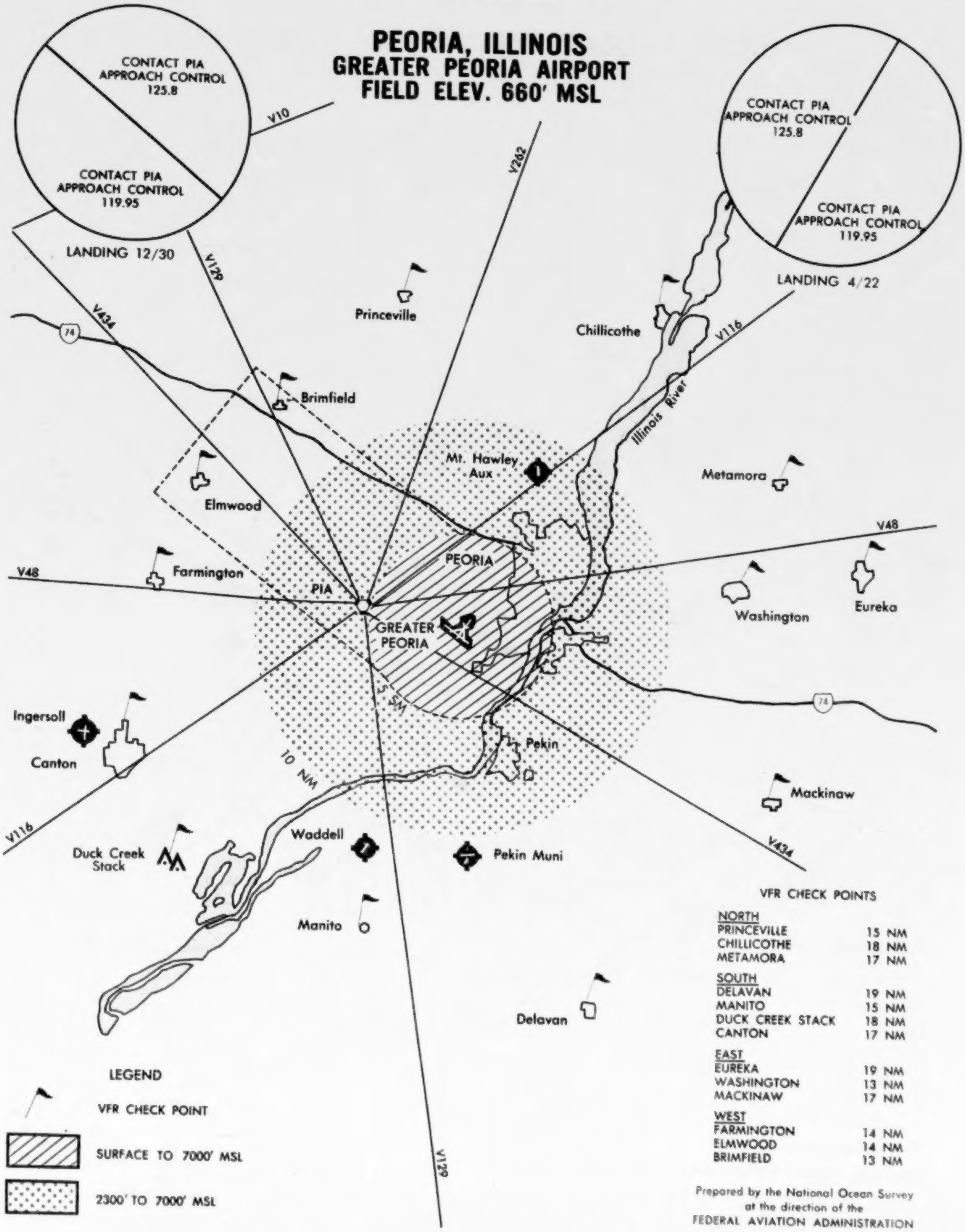
35 CEILING IN HUNDREDS OF FEET MSL
17 FLOOR IN HUNDREDS OF FEET MSL

CONTACT PENSACOLA
APPROACH CONTROL
118.8 270.8

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PEORIA, ILLINOIS
GREATER PEORIA AIRPORT
FIELD ELEV. 660' MSL


CONTACT PIA APPROACH CONTROL 125.8
CONTACT PIA APPROACH CONTROL 119.95
LANDING 12/30
CONTACT PIA APPROACH CONTROL 125.8
CONTACT PIA APPROACH CONTROL 119.95
LANDING 4/22
V10
V262
V129
V434
V116
V48
74
Princeville
Chillicothe
Brimfield
Illinois River
Mt. Hawley Aux
Metamora
Elmwood
Farmington
PEORIA
PIA
GREATER PEORIA
Washington
Eureka
5 SM
10 NM
Ingersoll
Canton
Pekin
Mackinaw
Duck Creek Stack
Waddell
Pekin Muni
Manito
Delavan

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 7000' MSL
- ░ 2300' TO 7000' MSL

VFR CHECK POINTS

NORTH	
PRINCEVILLE	15 NM
CHILLICOTHE	18 NM
METAMORA	17 NM
SOUTH	
DELAVAN	19 NM
MANITO	15 NM
DUCK CREEK STACK	18 NM
CANTON	17 NM
EAST	
EUREKA	19 NM
WASHINGTON	13 NM
MACKINAW	17 NM
WEST	
FARMINGTON	14 NM
ELMWOOD	14 NM
BRIMFIELD	13 NM

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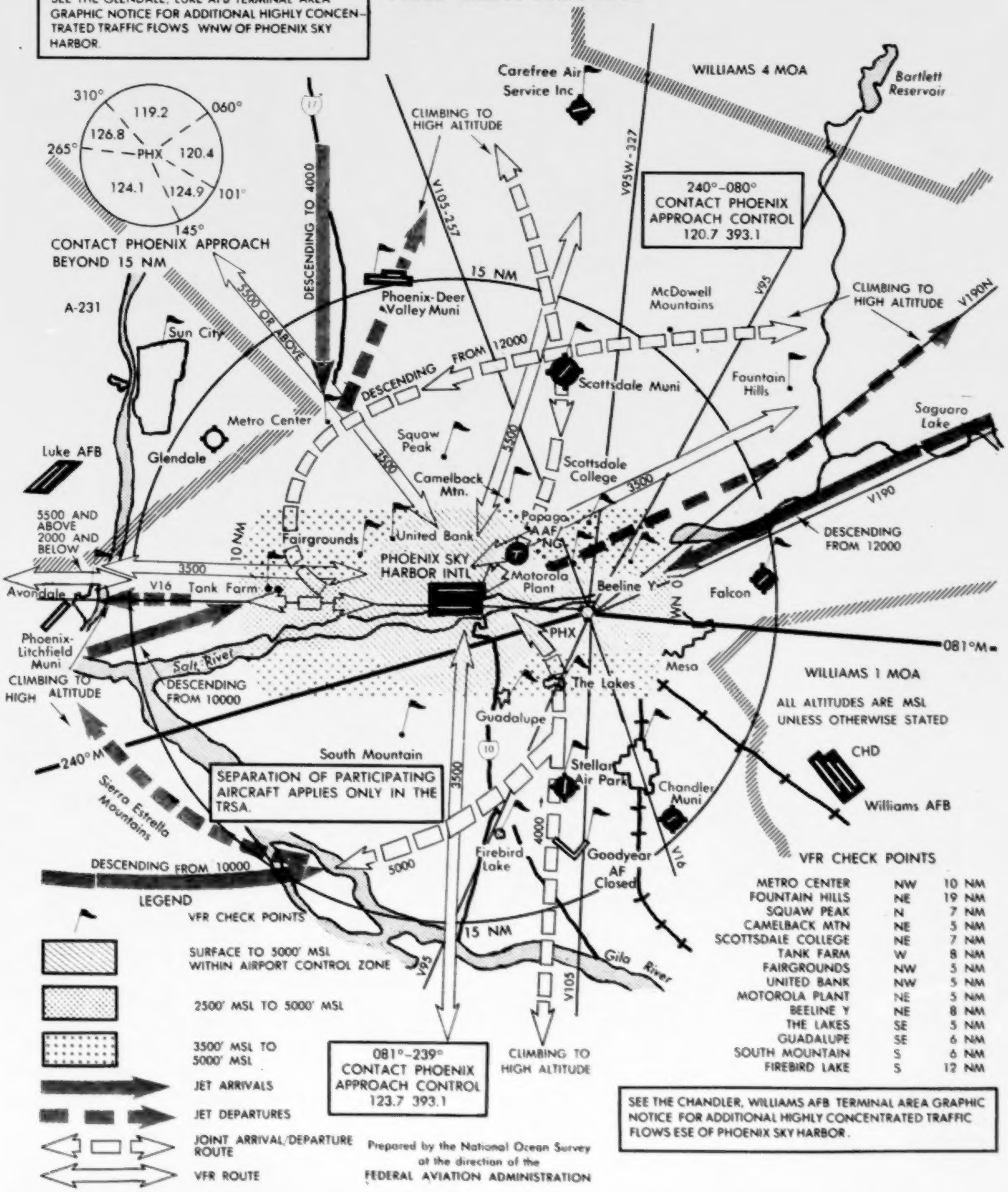
TERMINAL RADAR SERVICE AREA/
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PHOENIX, ARIZONA PHOENIX SKY HARBOR INTL

FIELD ELEV. 1132′ MSL

SEE THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW OF PHOENIX SKY HARBOR.


310°
119.2
060°
126.8
265°
PHX
120.4
124.1
124.9
101°
145°
CONTACT PHOENIX APPROACH BEYOND 15 NM
A-231
17
DESCENDING TO 4000
CLIMBING TO HIGH ALTITUDE
V105-257
Carefree Air Service Inc
WILLIAMS 4 MOA
Bartlett Reservoir
V95W-327
240°-080° CONTACT PHOENIX APPROACH CONTROL 120.7 393.1
15 NM
5500 OR ABOVE
Phoenix-Deer Valley Muni
McDowell Mountains
V95
CLIMBING TO HIGH ALTITUDE
V190N
Sun City
DESCENDING
FROM 12000
Scottsdale Muni
Fountain Hills
Saguaro Lake
Metro Center
Squaw Peak
5500
3500
Luke AFB
Glendale
Camelback Mtn.
Scottsdale College
3500
V190
5500 AND ABOVE 2000 AND BELOW
10 NM
Fairgrounds
United Bank
Papago AAF NG
DESCENDING FROM 12000
3500
PHOENIX SKY HARBOR INTL
Motorola Plant
Beeline Y
10 NM
Falcon
Avondale
V16
Tank Farm
PHX
081°M
Phoenix-Litchfield Muni
Salt River
Mesa
WILLIAMS 1 MOA
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 10000
The Lakes
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
Guadalupe
240°M
South Mountain
10
3500
CHD
Sierra Estrella Mountains
SEPARATION OF PARTICIPATING AIRCRAFT APPLIES ONLY IN THE TRSA.
Stellar Air Park
Chandler Muni
Williams AFB
4000
V16
Firebird Lake
Goodyear AF Closed
DESCENDING FROM 10000
5000
LEGEND
VFR CHECK POINTS
15 NM
SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
Gila River
V95
V105
2500′ MSL TO 5000′ MSL
3500′ MSL TO 5000′ MSL
081°-239° CONTACT PHOENIX APPROACH CONTROL 123.7 393.1
CLIMBING TO HIGH ALTITUDE
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTE

VFR CHECK POINTS

METRO CENTER	NW	10 NM
FOUNTAIN HILLS	NE	19 NM
SQUAW PEAK	N	7 NM
CAMELBACK MTN	NE	5 NM
SCOTTSDALE COLLEGE	NE	7 NM
TANK FARM	W	8 NM
FAIRGROUNDS	NW	5 NM
UNITED BANK	NW	5 NM
MOTOROLA PLANT	NE	5 NM
BEELINE Y	NE	8 NM
THE LAKES	SE	5 NM
GUADALUPE	SE	6 NM
SOUTH MOUNTAIN	S	6 NM
FIREBIRD LAKE	S	12 NM

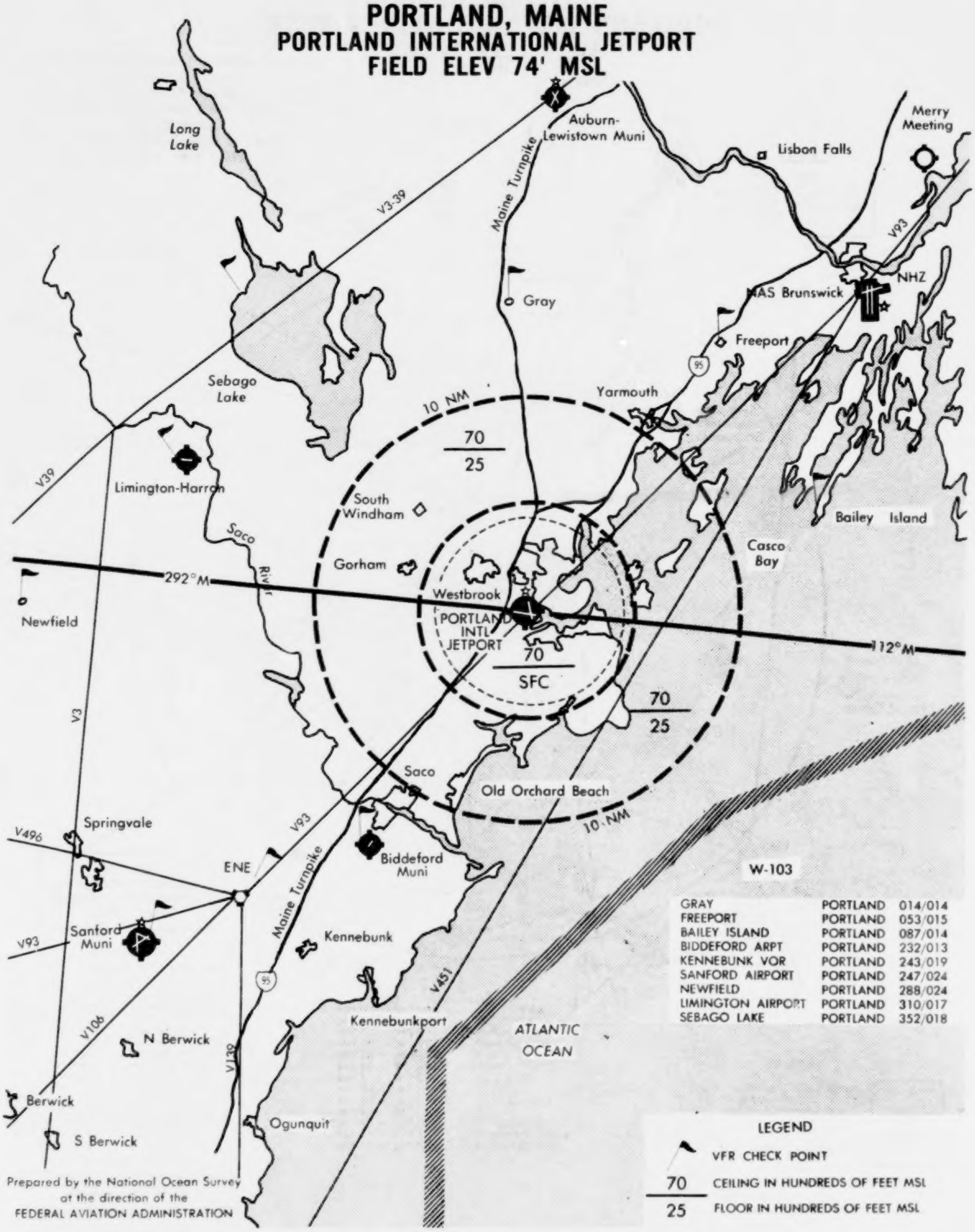
SEE THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE OF PHOENIX SKY HARBOR.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PORTLAND, MAINE
PORTLAND INTERNATIONAL JETPORT
FIELD ELEV 74' MSL


Long Lake
Auburn-Lewistown Muni
Lisbon Falls
Merry Meeting
V3-39
Maine Turnpike
V93
NHZ
NAS Brunswick
Gray
Freeport
95
Sebago Lake
Yarmouth
10 NM
70
25
V39
Limington-Harron
South Windham
Bailey Island
Casco Bay
Saco River
Gorham
292°M
Newfield
Westbrook
PORTLAND INTL JETPORT
112°M
70
SFC
70
25
V3
Saco
Old Orchard Beach
10 NM
Springvale
V496
V93
ENE
Biddeford Muni
W-103
Sanford Muni
V93
Kennebunk
Maine Turnpike
95
V451
V106
Kennebunkport
ATLANTIC OCEAN
N Berwick
V139
Berwick
S Berwick
Ogunquit

GRAY	PORTLAND	014/014
FREEPORT	PORTLAND	053/015
BAILEY ISLAND	PORTLAND	087/014
BIDDEFORD ARPT	PORTLAND	232/013
KENNEBUNK VOR	PORTLAND	243/019
SANFORD AIRPORT	PORTLAND	247/024
NEWFIELD	PORTLAND	288/024
LIMINGTON AIRPORT	PORTLAND	310/017
SEBAGO LAKE	PORTLAND	352/018

LEGEND

- VFR CHECK POINT
- 70 CEILING IN HUNDREDS OF FEET MSL
- 25 FLOOR IN HUNDREDS OF FEET MSL

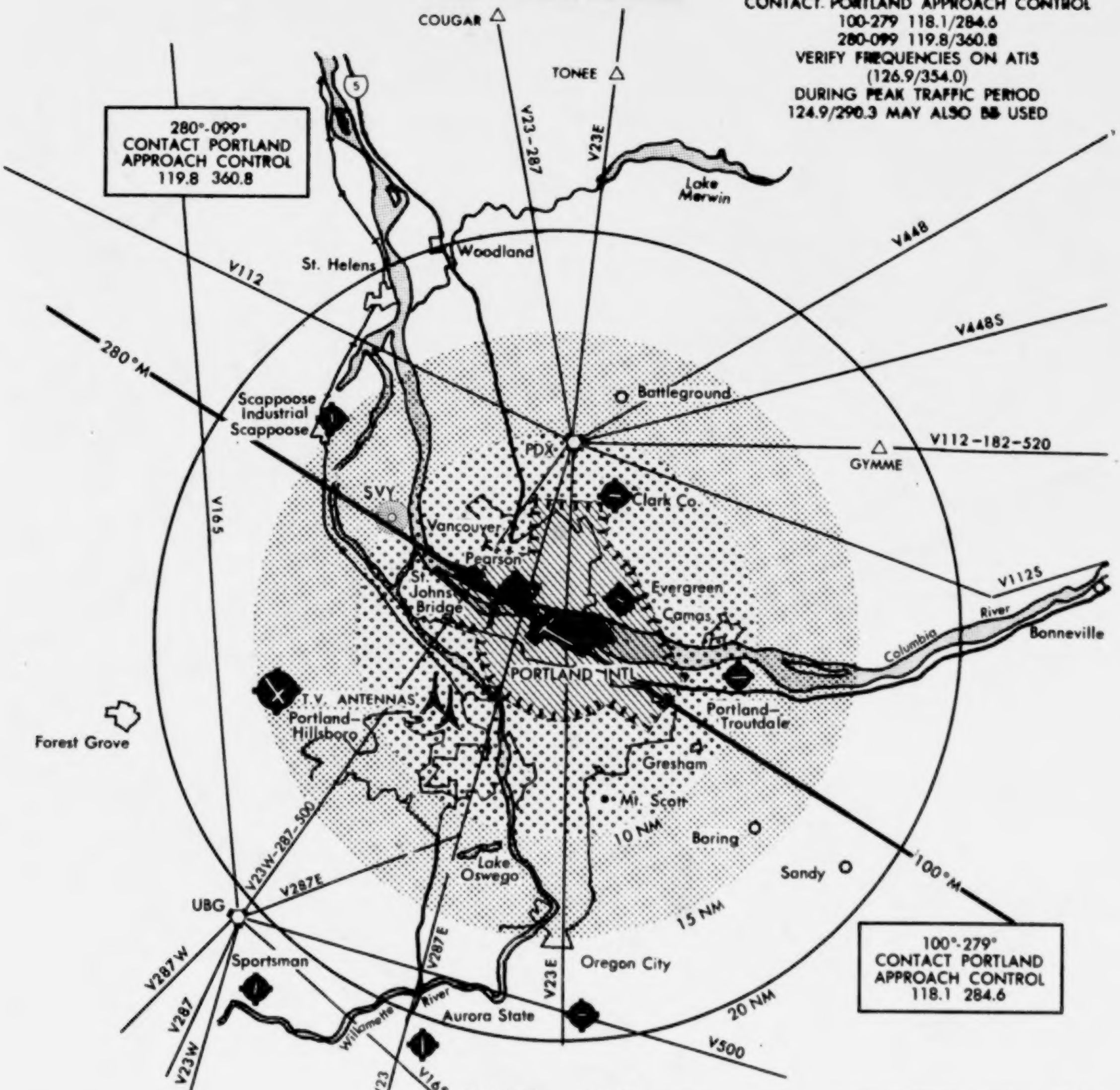
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

FEB 25 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PORTLAND, OREGON
PORTLAND INTERNATIONAL AIRPORT
FIELD ELEV. 26' MSL

CONTACT PORTLAND APPROACH CONTROL
100-279 118.1/284.6
280-099 119.8/360.8
VERIFY FREQUENCIES ON ATIS
(126.9/354.0)
DURING PEAK TRAFFIC PERIOD
124.9/290.3 MAY ALSO BE USED


COUGAR
TONEE
V23-287
V23E
5
280°-099°
CONTACT PORTLAND
APPROACH CONTROL
119.8 360.8
Lake Merwin
V448
Woodland
St. Helens
V112
V448S
280°M
Battleground
Scappoose Industrial
Scappoose
PDX
GYMME
V112-182-520
SVY
Clark Co.
Vancouver
Pearson
V165
St. Johns Bridge
Evergreen
Camas
V112S
River
Columbia
Bonneville
PORTLAND INTL
T.V. ANTENNAS
Portland-Hillsboro
Portland-Troutdale
Forest Grove
Gresham
Mt. Scott
10 NM
Boring
Sandy
100°M
V23W-287-500
V287E
Lake Oswego
UBG
15 NM
100°-279°
CONTACT PORTLAND
APPROACH CONTROL
118.1 284.6
Sportsman
V287W
V287
V23W
V287E
V23E
Oregon City
Willamette River
Aurora State
20 NM
V500
V23
V165

SAUVIES IS.	285° M - 10 NM
SCAPPOOSE	290° M - 15 NM
ST. HELENS	310° M - 18 NM
WOODLAND	322° M - 20 NM
COUGAR	332° M - 30 NM
TONEE	344° M - 28 NM
SCHOLLS	003° M - 7 NM
GYMME	037° M - 18 NM
BONNEVILLE	063° M - 28 NM
CAMAS	072° M - 9 NM
TROUTDALE	084° M - 9 NM
BATTLEGROUND	355° M - 12 NM
LAKE MERWIN	355° M - 24 NM

T.V. ANTENNAS	205° M - 7 NM
NEWBURG	205° M - 21 NM
HILLSBORO	235° M - 15 NM
FOREST GROVE	235° M - 22 NM
ST JOHNS BRIDGE	240° M - 7 NM
GRESHAM	108° M - 9 NM
SANDY	108° M - 19 NM
BORING	113° M - 14 NM
MT SCOTT	140° M - 9 NM
OREGON CITY	155° M - 15 NM
LAKE OSWEGO	175° M - 11 NM
AURORA	175° M - 22 NM

LEGEND

▨	SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE
⁘	2000 TO 8000' MSL
░	3000 TO 8000' MSL

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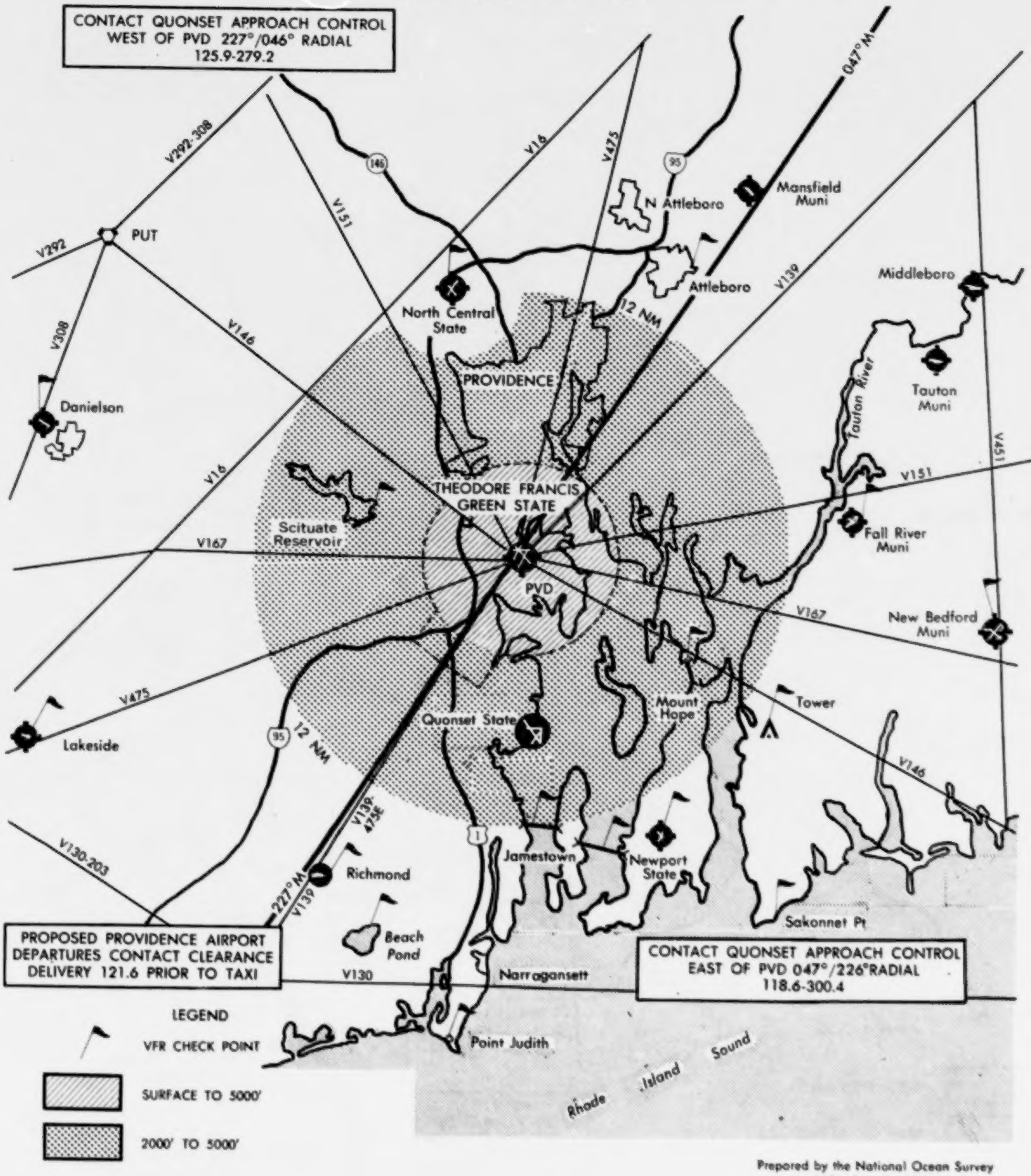
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PROVIDENCE, RHODE ISLAND
THEODORE FRANCIS GREEN STATE AIRPORT
FIELD ELEV 56' MSL



CONTACT QUONSET APPROACH CONTROL
WEST OF PVD 227°/046° RADIAL
125.9-279.2

PROPOSED PROVIDENCE AIRPORT
DEPARTURES CONTACT CLEARANCE
DELIVERY 121.6 PRIOR TO TAXI

CONTACT QUONSET APPROACH CONTROL
EAST OF PVD 047°/226°RADIAL
118.6-300.4

LEGEND

VFR CHECK POINT

▨ SURFACE TO 5000'

▒ 2000' TO 5000'

047° M
V292-308
V292
PUT
V308
V16
V151
V475
V146
V139
V167
V451
V130-203
V130
V139-475E
227° M
12 NM
95
146
1
N Attleboro
Attleboro
Mansfield Muni
Middleboro
North Central State
PROVIDENCE
Danielson
Taunton River
Tauton Muni
THEODORE FRANCIS GREEN STATE
Scituate Reservoir
PVD
Fall River Muni
New Bedford Muni
Tower
Mount Hope
Quonset State
Lakeside
Jamestown
Newport State
Richmond
Beach Pond
Sakonnet Pt
Narragansett
Point Judith
Rhode Island Sound

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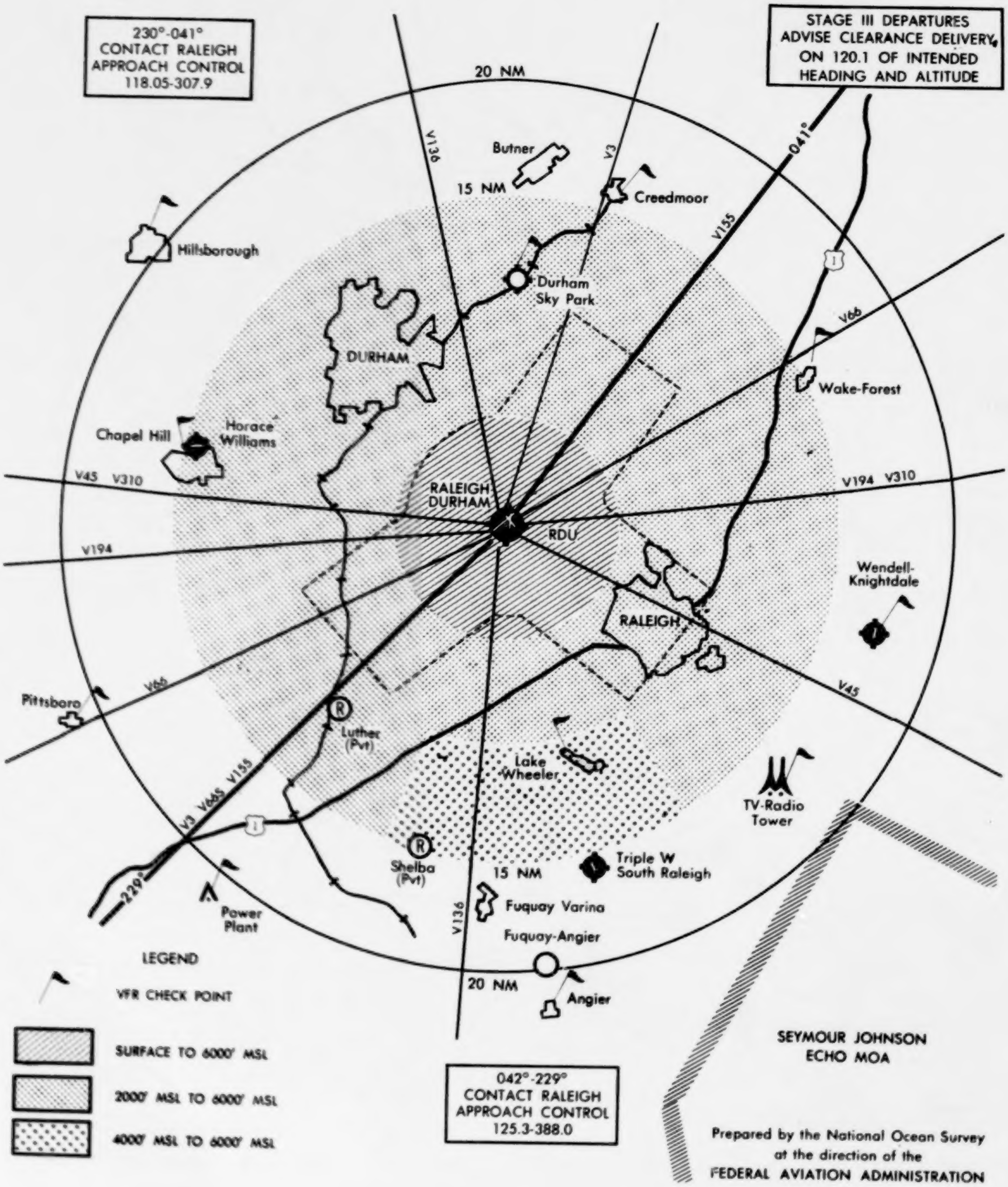
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RALEIGH, N.C. RALEIGH-DURHAM AIRPORT
FIELD ELEV 437' MSL


230°-041°
CONTACT RALEIGH
APPROACH CONTROL
118.05-307.9
STAGE III DEPARTURES
ADVISE CLEARANCE DELIVERY
ON 120.1 OF INTENDED
HEADING AND ALTITUDE
20 NM
15 NM
V136
V3
Butner
Creedmoor
041°
V155
Hillsborough
Durham
Sky Park
V66
DURHAM
Wake-Forest
Chapel Hill
Horace
Williams
V45 V310
V194 V310
RALEIGH
DURHAM
RDU
V194
Wendell-
Knightdale
RALEIGH
V66
V45
Pittsboro
Luther
(Pvt)
Lake
Wheeler
V3 V66S V155
TV-Radio
Tower
229°
Shelba
(Pvt)
15 NM
Triple W
South Raleigh
Power
Plant
V136
Fuquay Varina
Fuquay-Angier
20 NM
Angier
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL
4000' MSL TO 6000' MSL
042°-229°
CONTACT RALEIGH
APPROACH CONTROL
125.3-388.0
SEYMOUR JOHNSON
ECHO MOA

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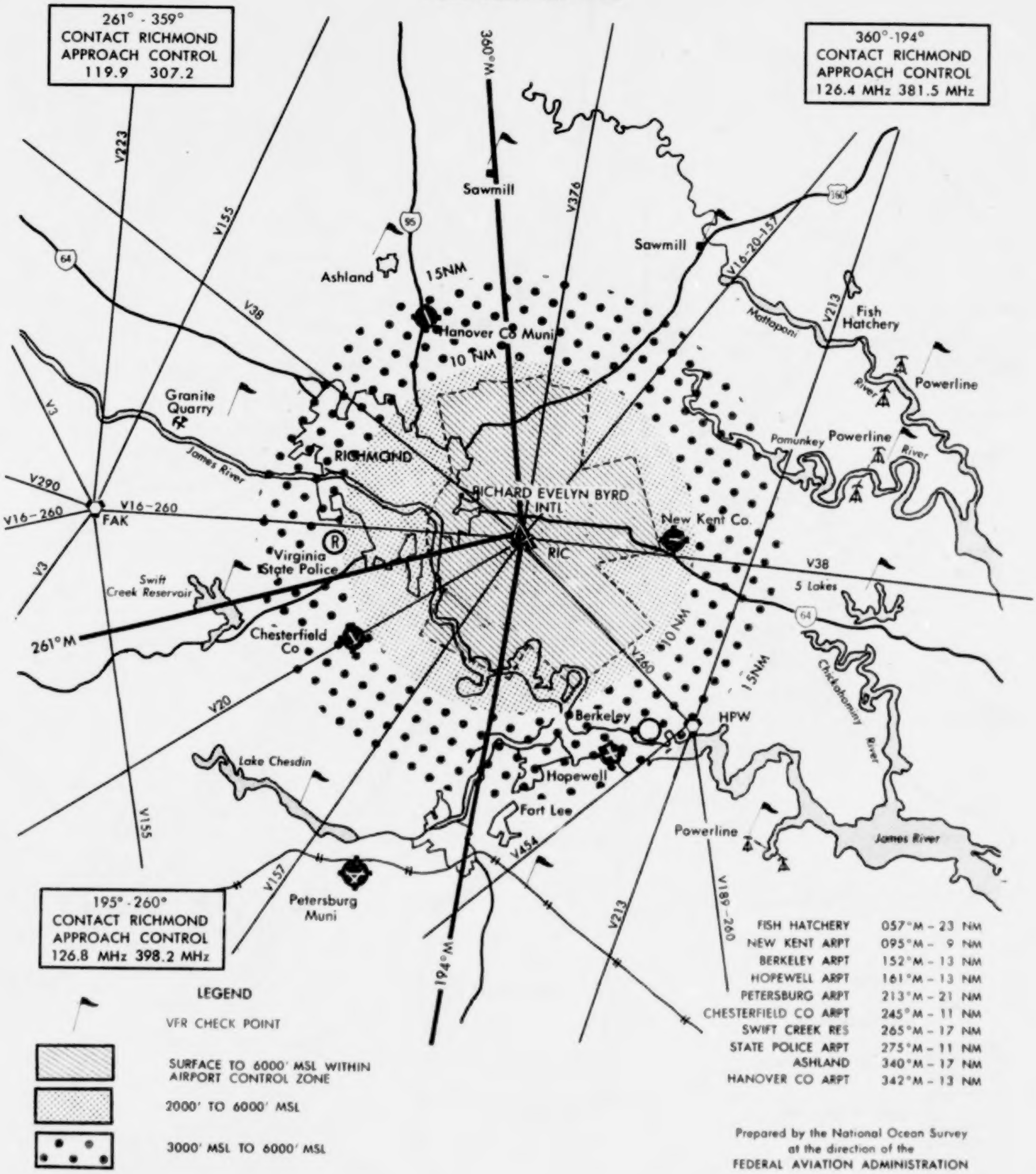
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RICHMOND, VA. RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
FIELD ELEV. 168′ MSL


261° - 359°
CONTACT RICHMOND
APPROACH CONTROL
119.9 307.2
360°-194°
CONTACT RICHMOND
APPROACH CONTROL
126.4 MHz 381.5 MHz
195°-260°
CONTACT RICHMOND
APPROACH CONTROL
126.8 MHz 398.2 MHz
360°M
194°M
261°M
V223
V155
V376
V38
V3
V290
V16-260
V16-20-157
V213
V20
V157
V454
V260
V189-260
64
95
360
Sawmill
Sawmill
Ashland
15NM
10 NM
Hanover Co Muni
Granite Quarry
RICHMOND
James River
RICHARD EVELYN BYRD INTL
RIC
FAK
Virginia State Police
Swift Creek Reservoir
Chesterfield Co
New Kent Co.
5 Lakes
Fish Hatchery
Mattaponi
River
Pamunkey
River
Powerline
Powerline
Powerline
Chickahominy River
Berkeley
HPW
Hopewell
Fort Lee
Lake Chesdin
Petersburg Muni
James River

FISH HATCHERY	057°M - 23 NM
NEW KENT ARPT	095°M - 9 NM
BERKELEY ARPT	152°M - 13 NM
HOPEWELL ARPT	161°M - 13 NM
PETERSBURG ARPT	213°M - 21 NM
CHESTERFIELD CO ARPT	245°M - 11 NM
SWIFT CREEK RES	265°M - 17 NM
STATE POLICE ARPT	275°M - 11 NM
ASHLAND	340°M - 17 NM
HANOVER CO ARPT	342°M - 13 NM

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
░	2000′ TO 6000′ MSL
●	3000′ MSL TO 6000′ MSL

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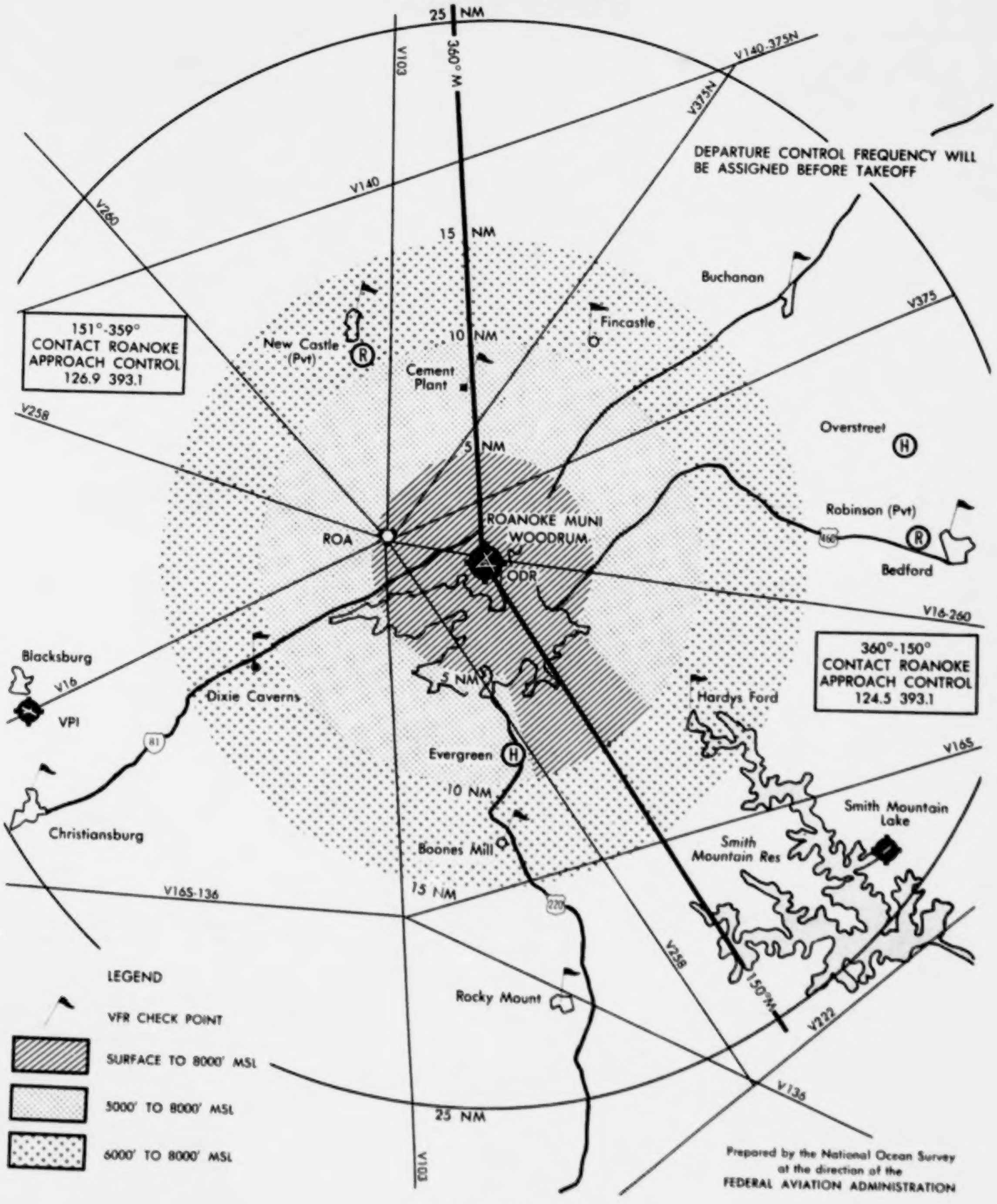
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROANOKE, VIRGINIA
WOODRUM MUNICIPAL AIRPORT
FIELD ELEV 1175′ MSL

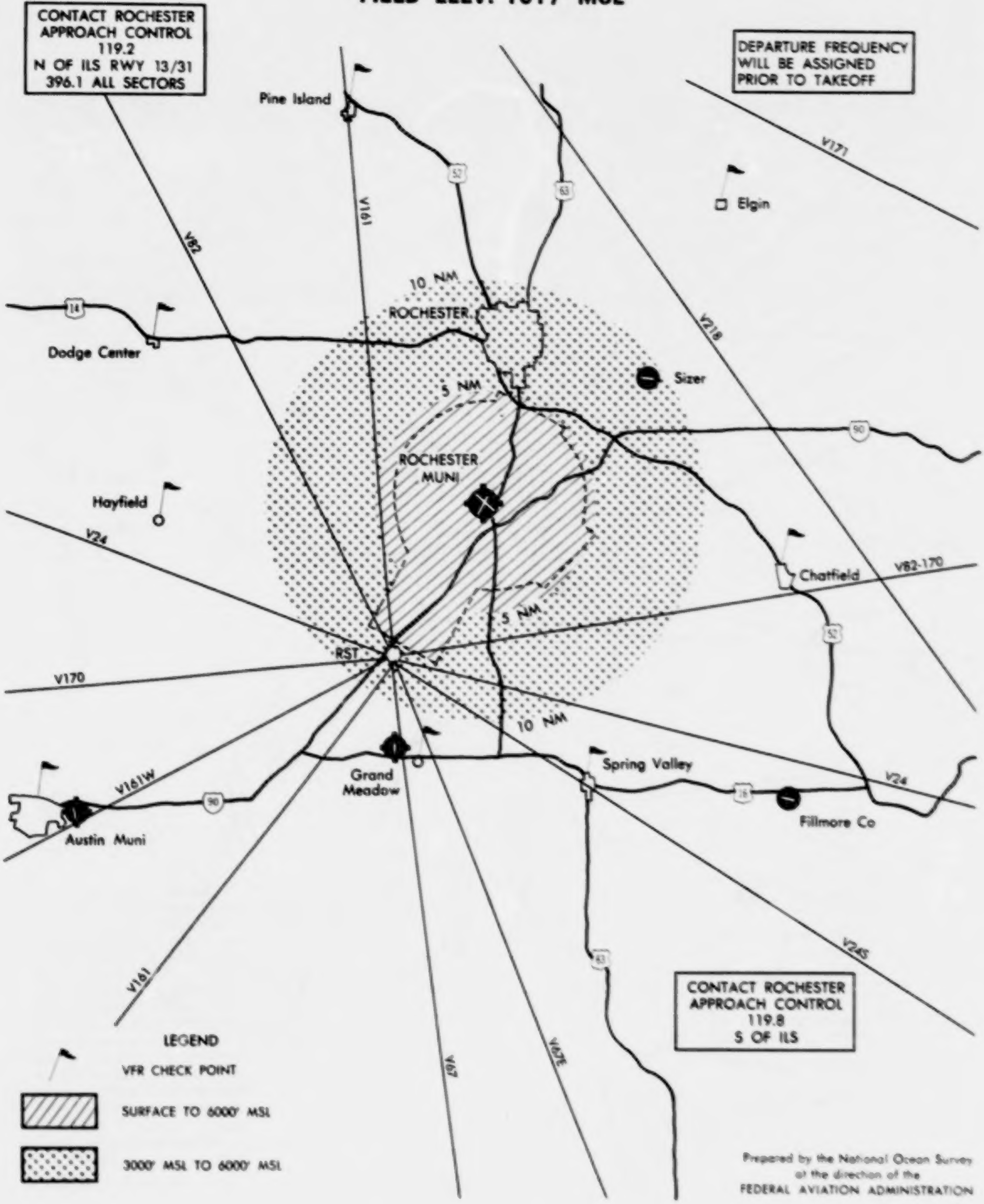

25 NM
360° M
V103
V140-375N
V375N
V140
V260
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
15 NM
Buchanan
V375
151°-359° CONTACT ROANOKE APPROACH CONTROL 126.9 393.1
New Castle (Pvt)
R
10 NM
Fincastle
Cement Plant
V258
Overstreet
H
5 NM
Robinson (Pvt)
R
460
ROANOKE MUNI WOODRUM
ROA
ODR
Bedford
V16-260
360°-150° CONTACT ROANOKE APPROACH CONTROL 124.5 393.1
Blacksburg
V16
Dixie Caverns
5 NM
Hardys Ford
VPI
81
Evergreen
H
V165
10 NM
Smith Mountain Lake
Christiansburg
Smith Mountain Res
Boones Mill
V165-136
15 NM
220
V258
150°M
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL
5000′ TO 8000′ MSL
6000′ TO 8000′ MSL
Rocky Mount
V222
V136
25 NM
V103

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

13 JUL 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROCHESTER, MINNESOTA
ROCHESTER MUNI
FIELD ELEV. 1317' MSL


CONTACT ROCHESTER
APPROACH CONTROL
119.2
N OF ILS RWY 13/31
396.1 ALL SECTORS
DEPARTURE FREQUENCY
WILL BE ASSIGNED
PRIOR TO TAKEOFF
Pine Island
52
63
V171
Elgin
V161
V82
10 NM
ROCHESTER
14
Dodge Center
V218
Sizer
5 NM
90
ROCHESTER
MUNI
Hayfield
V24
Chatfield
V82-170
5 NM
RST
52
V170
10 NM
Grand
Meadow
Spring Valley
V24
V161W
90
16
Fillmore Co
Austin Muni
V245
V161
63
CONTACT ROCHESTER
APPROACH CONTROL
119.8
S OF ILS
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
3000' MSL TO 6000' MSL
V67
V67E

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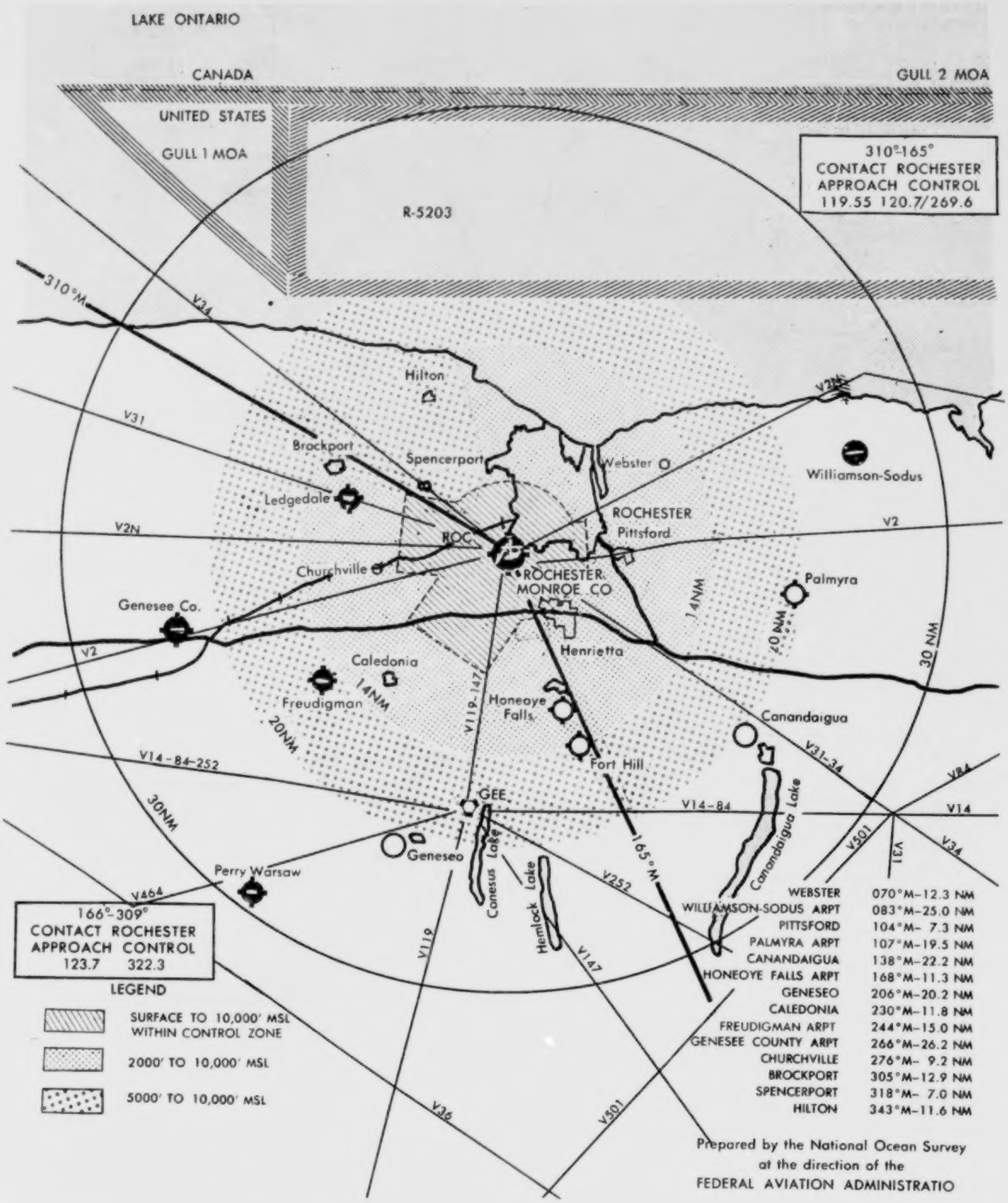
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROCHESTER, NEW YORK, ROCHESTER MONROE COUNTY AIRPORT
FIELD ELEV. 559′ MSL


LAKE ONTARIO
CANADA
UNITED STATES
GULL 1 MOA
GULL 2 MOA
R-5203
310°M
165°M
V34
V31
V2N
V2
V2N
V119-147
V119
V147
V14-84-252
V14-84
V14
V84
V252
V31-34
V501
V36
V464
30NM
20NM
14NM
Hilton
Brockport
Spencerport
Ledgedale
Webster
Williamson-Sodus
ROCHESTER
Pittsford
ROC
Churchville
ROCHESTER MONROE CO
Palmyra
Genesee Co.
Henrietta
Caledonia
Freudigman
Honeoye Falls
Fort Hill
Canandaigua
Canandaigua Lake
GEE
Geneseo
Conesus Lake
Hemlock Lake
Perry Warsaw

310°-165°
CONTACT ROCHESTER
APPROACH CONTROL
119.55 120.7/269.6

166°-309°
CONTACT ROCHESTER
APPROACH CONTROL
123.7 322.3

LEGEND

▨	SURFACE TO 10,000′ MSL WITHIN CONTROL ZONE
░	2000′ TO 10,000′ MSL
⁘	5000′ TO 10,000′ MSL

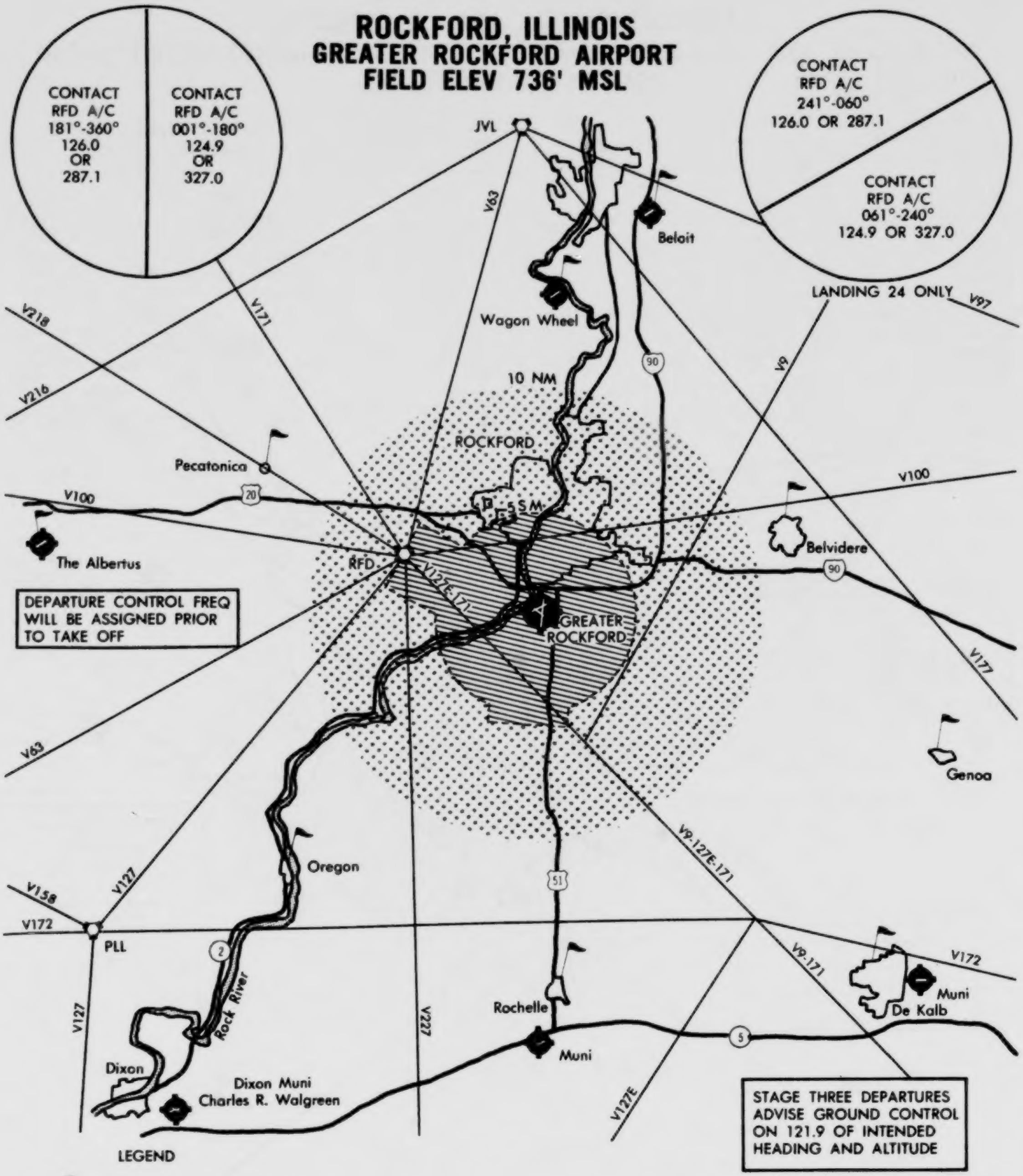
WEBSTER	070°M-12.3 NM
WILLIAMSON-SODUS ARPT	083°M-25.0 NM
PITTSFORD	104°M- 7.3 NM
PALMYRA ARPT	107°M-19.5 NM
CANANDAIGUA	138°M-22.2 NM
HONEOYE FALLS ARPT	168°M-11.3 NM
GENESEO	206°M-20.2 NM
CALEDONIA	230°M-11.8 NM
FREUDIGMAN ARPT	244°M-15.0 NM
GENESEE COUNTY ARPT	266°M-26.2 NM
CHURCHVILLE	276°M- 9.2 NM
BROCKPORT	305°M-12.9 NM
SPENCERPORT	318°M- 7.0 NM
HILTON	343°M-11.6 NM

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATIO

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

ROCKFORD, ILLINOIS
GREATER ROCKFORD AIRPORT
FIELD ELEV 736' MSL


JVL
V63
V171
V218
V216
Beloit
Wagon Wheel
90
V9
LANDING 24 ONLY
V97
10 NM
ROCKFORD
SSM
Pecatonica
V100
20
V100
The Albertus
RFD
V127E-171
Belvidere
90
GREATER ROCKFORD
V177
Genoa
V63
V9-127E-171
51
Oregon
V158
V127
V172
PLL
2
Rock River
V127
V227
Rochelle
Muni
5
V9-171
V172
Muni
De Kalb
Dixon
Dixon Muni
Charles R. Walgreen
V127E

CONTACT
RFD A/C
181°-360°
126.0
OR
287.1

CONTACT
RFD A/C
001°-180°
124.9
OR
327.0

CONTACT
RFD A/C
241°-060°
126.0 OR 287.1

CONTACT
RFD A/C
061°-240°
124.9 OR 327.0

DEPARTURE CONTROL FREQ
WILL BE ASSIGNED PRIOR
TO TAKE OFF

STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF INTENDED
HEADING AND ALTITUDE

LEGEND

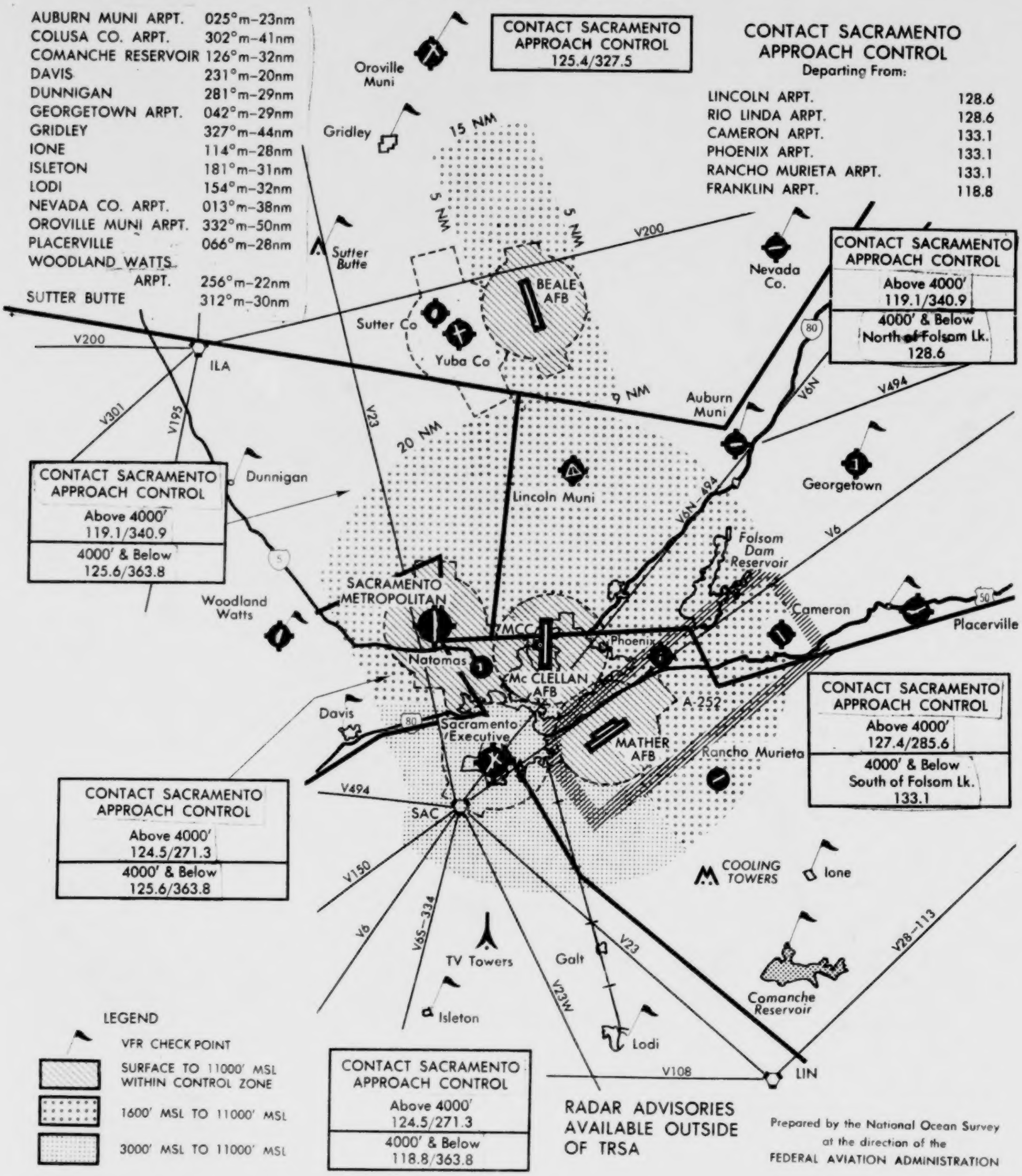
- VFR CHECK POINT
- ▨ SURFACE TO 6000' MSL
- ░ 2000' TO 6000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SACRAMENTO VALLEY, CALIFORNIA
MC CLELLAN AFB BEALE AFB MATHER AFB SACRAMENTO METROPOLITAN
FIELD ELEVATION 76′ MSL



VFR CHECK POINTS
(From McClellan AFB)

AUBURN MUNI ARPT.	025°m–23nm
COLUSA CO. ARPT.	302°m–41nm
COMANCHE RESERVOIR	126°m–32nm
DAVIS	231°m–20nm
DUNNIGAN	281°m–29nm
GEORGETOWN ARPT.	042°m–29nm
GRIDLEY	327°m–44nm
IONE	114°m–28nm
ISLETON	181°m–31nm
LODI	154°m–32nm
NEVADA CO. ARPT.	013°m–38nm
OROVILLE MUNI ARPT.	332°m–50nm
PLACERVILLE	066°m–28nm
WOODLAND WATTS ARPT.	256°m–22nm
SUTTER BUTTE	312°m–30nm

CONTACT SACRAMENTO APPROACH CONTROL
Departing From:

LINCOLN ARPT.	128.6
RIO LINDA ARPT.	128.6
CAMERON ARPT.	133.1
PHOENIX ARPT.	133.1
RANCHO MURIETA ARPT.	133.1
FRANKLIN ARPT.	118.8

CONTACT SACRAMENTO APPROACH CONTROL 125.4/327.5
CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′ 119.1/340.9
4000′ & Below North of Folsom Lk. 128.6
CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′ 119.1/340.9
4000′ & Below 125.6/363.8
CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′ 127.4/285.6
4000′ & Below South of Folsom Lk. 133.1
CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′ 124.5/271.3
4000′ & Below 125.6/363.8
CONTACT SACRAMENTO APPROACH CONTROL
Above 4000′ 124.5/271.3
4000′ & Below 118.8/363.8
Oroville Muni
Gridley
15 NM
5 NM
5 NM
9 NM
20 NM
V200
V200
V301
V195
V23
V6N
V494
V6N-494
V6
V494
V150
V6
V65-334
V23W
V23
V28-113
V108
Sutter Butte
Sutter Co
Yuba Co
BEALE AFB
Nevada Co.
80
Auburn Muni
ILA
Dunnigan
Lincoln Muni
Georgetown
Folsom Dam Reservoir
5
SACRAMENTO METROPOLITAN
MCC
Phoenix
Cameron
50
Placerville
Woodland Watts
Natomas
Mc CLELLAN AFB
A-252
Davis
80
Sacramento Executive
MATHER AFB
Rancho Murieta
SAC
COOLING TOWERS
Ione
TV Towers
Galt
Comanche Reservoir
Isleton
Lodi
LIN
LEGEND
VFR CHECK POINT
SURFACE TO 11000′ MSL WITHIN CONTROL ZONE
1600′ MSL TO 11000′ MSL
3000′ MSL TO 11000′ MSL

RADAR ADVISORIES AVAILABLE OUTSIDE OF TRSA

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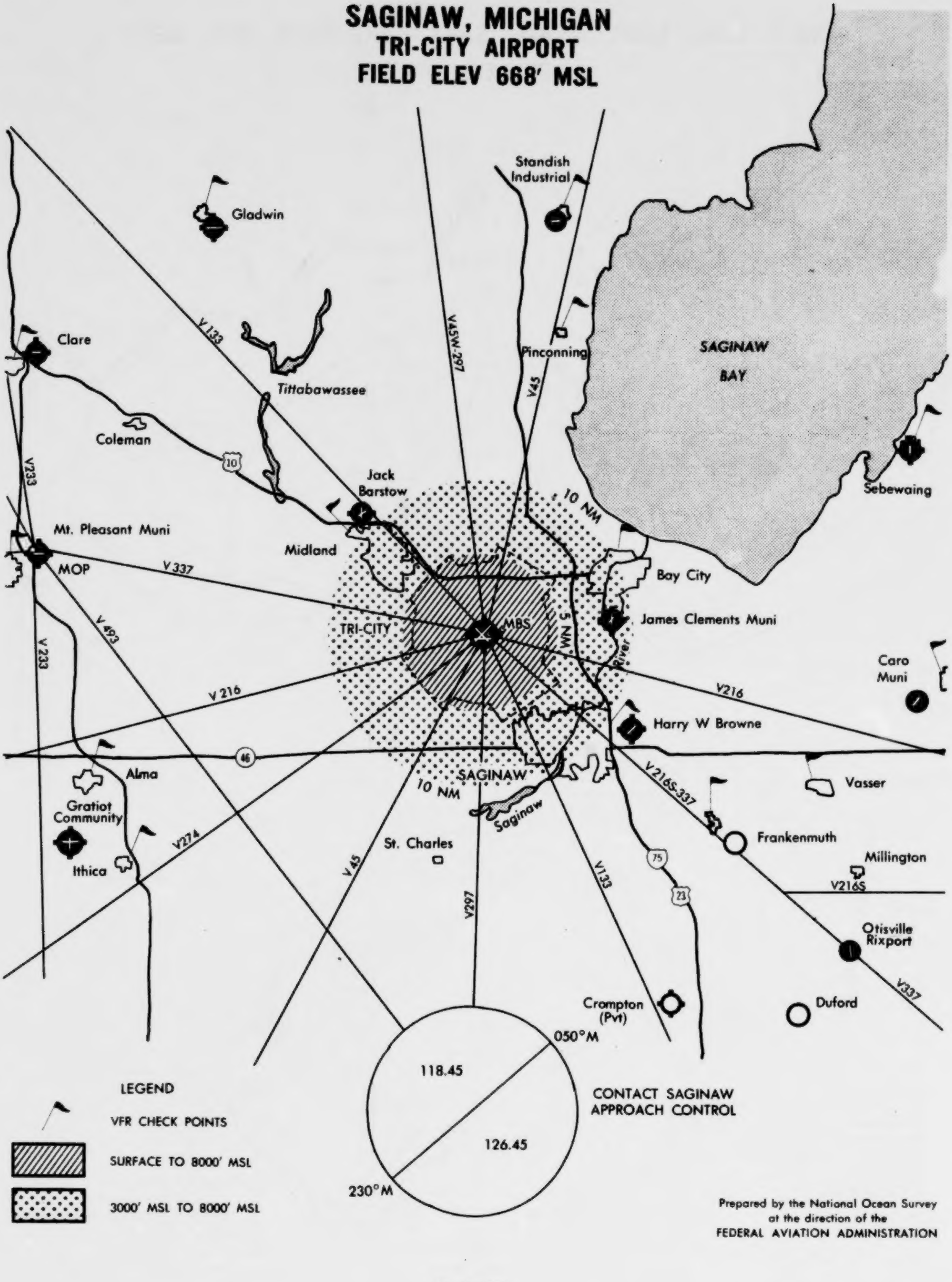
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAGINAW, MICHIGAN
TRI-CITY AIRPORT
FIELD ELEV 668′ MSL


Standish Industrial
Gladwin
Pinconning
SAGINAW BAY
Clare
V 133
V45W-297
V45
Tittabawassee
Coleman
10
V233
Jack Barstow
10 NM
Sebewaing
Mt. Pleasant Muni
MOP
Midland
V 337
Bay City
James Clements Muni
TRI-CITY
MBS
5 NM
River
Caro Muni
V 493
V 233
V 216
V216
Harry W Browne
46
Alma
SAGINAW
10 NM
V216S-337
Vasser
Gratiot Community
Saginaw
Frankenmuth
V274
Ithica
St. Charles
V45
V297
V133
75
23
Millington
V216S
Otisville Rixport
V337
Crompton (Pvt)
Dufort
050°M
118.45
126.45
230°M
CONTACT SAGINAW APPROACH CONTROL
LEGEND
VFR CHECK POINTS
SURFACE TO 8000′ MSL
3000′ MSL TO 8000′ MSL

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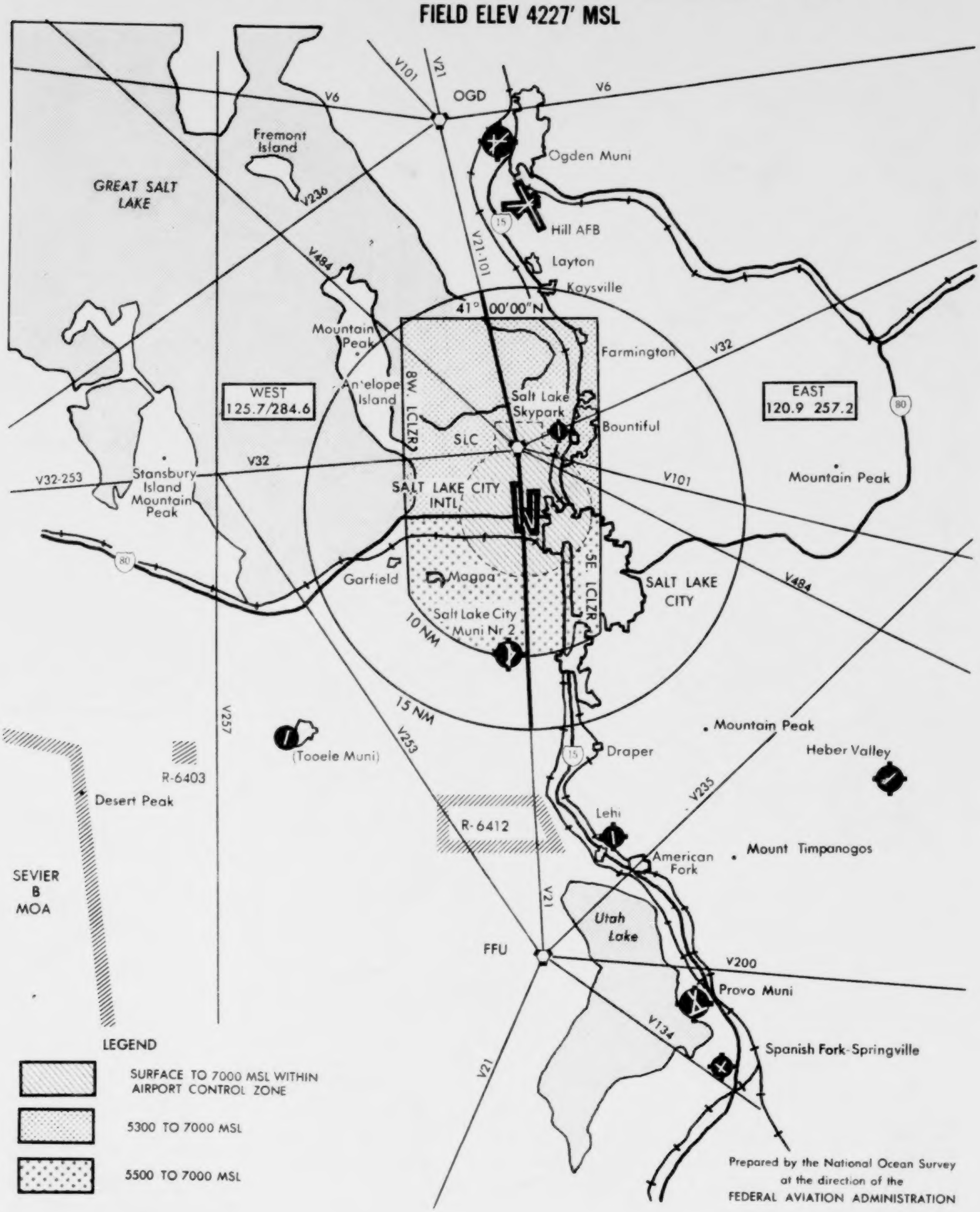
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SALT LAKE CITY, UTAH, SALT LAKE CITY INTL ARPT

FIELD ELEV 4227′ MSL


V101
V21
OGD
V6
V6
Fremont Island
Ogden Muni
GREAT SALT LAKE
V236
15
Hill AFB
V21-101
Layton
V484
Kaysville
41° 00′00″N
Mountain Peak
Farmington
V32
WEST 125.7/284.6
EAST 120.9 257.2
8W. LCLZR
Antelope Island
Salt Lake Skypark
Bountiful
SLC
80
V32
V32-253
Stansbury Island Mountain Peak
SALT LAKE CITY INTL
V101
Mountain Peak
80
Garfield
Magna
5E. LCLZR
SALT LAKE CITY
V484
Salt Lake City Muni Nr 2
10 NM
15 NM
V257
V253
(Tooele Muni)
R-6403
Desert Peak
Mountain Peak
15
Draper
Heber Valley
V235
Lehi
R-6412
American Fork
Mount Timpanogos
SEVIER B MOA
V21
Utah Lake
FFU
V200
Provo Muni
V134
Spanish Fork-Springville
V21
LEGEND
SURFACE TO 7000 MSL WITHIN AIRPORT CONTROL ZONE
5300 TO 7000 MSL
5500 TO 7000 MSL

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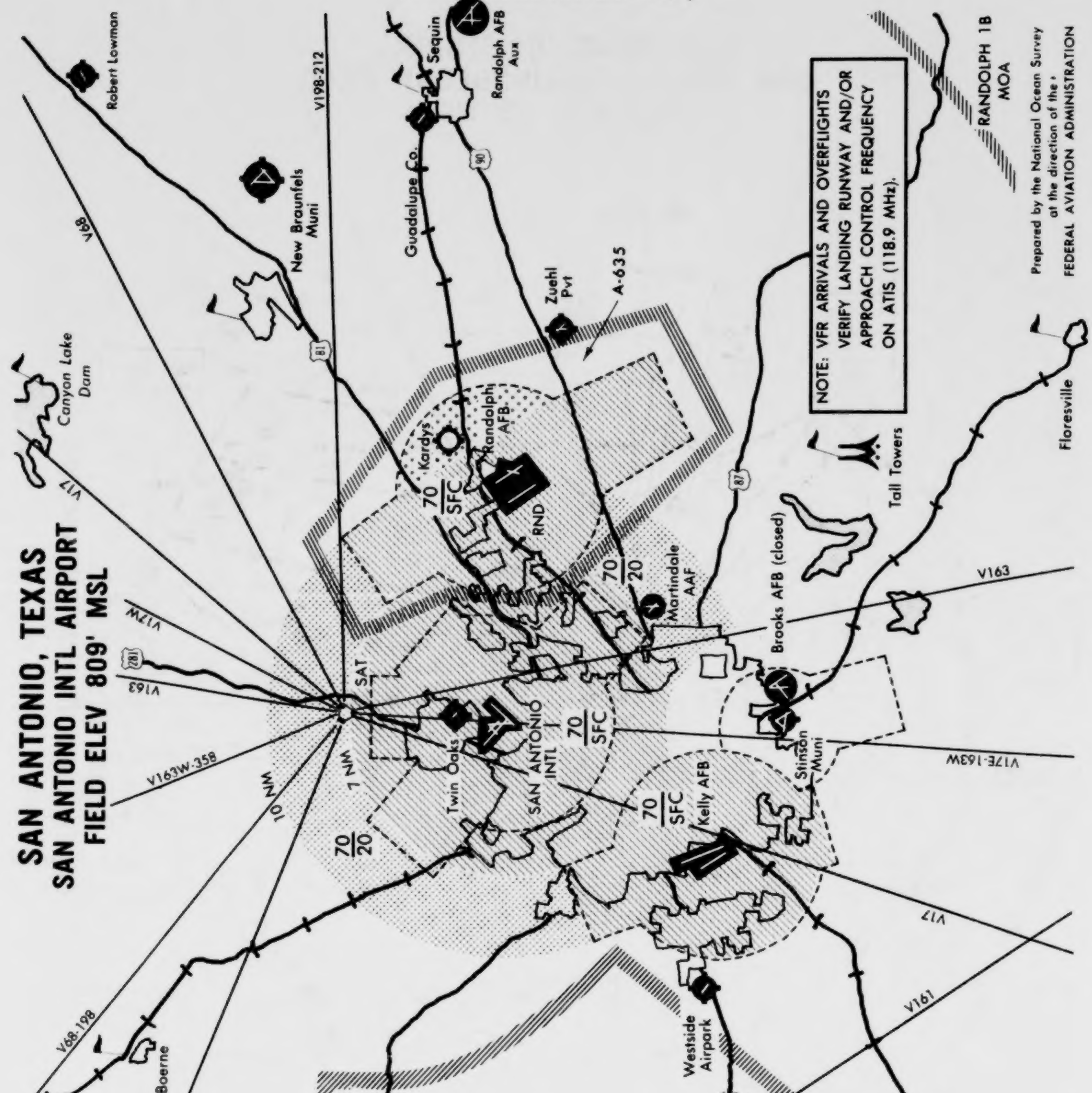
FEDERAL AVIATION ADMINISTRATION

22 FEB 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAN ANTONIO, TEXAS
SAN ANTONIO INTL AIRPORT
FIELD ELEV 809' MSL


Robert Lowman
V198-212
Seguin
Randolph AFB Aux
Guadalupe Co.
New Braunfels Muni
V68
Canyon Lake Dam
V17
Zuehl Pvt
A-635
Kardys
Randolph AFB
RND
70/SFC
70/20
Martindale AAF
V17W
V163
281
81
90
87
SAT
Twin Oaks
SAN ANTONIO INTL
70/SFC
7 NM
10 NM
V163W-358
70/20
70/SFC
Kelly AFB
Stinson Muni
Brooks AFB (closed)
V163
V17E-163W
V17
Tall Towers
Floresville
RANDOLPH 1B MOA
V68-198
Boerne
16
Westside Airpark
V161
Lytle
RANDOLPH 2B MOA
Castroville Muni
Medina Lake Dam
V68S
RANDOLPH 2A MOA

NOTE: VFR ARRIVALS AND OVERFLIGHTS VERIFY LANDING RUNWAY AND/OR APPROACH CONTROL FREQUENCY ON ATIS (118.9 MHz).

LEGEND

VFR CHECK POINTS

▨ SURFACE TO 7000' MSL

▨ 2000' MSL TO 7000' MSL

▨ 3000' MSL TO 7000' MSL

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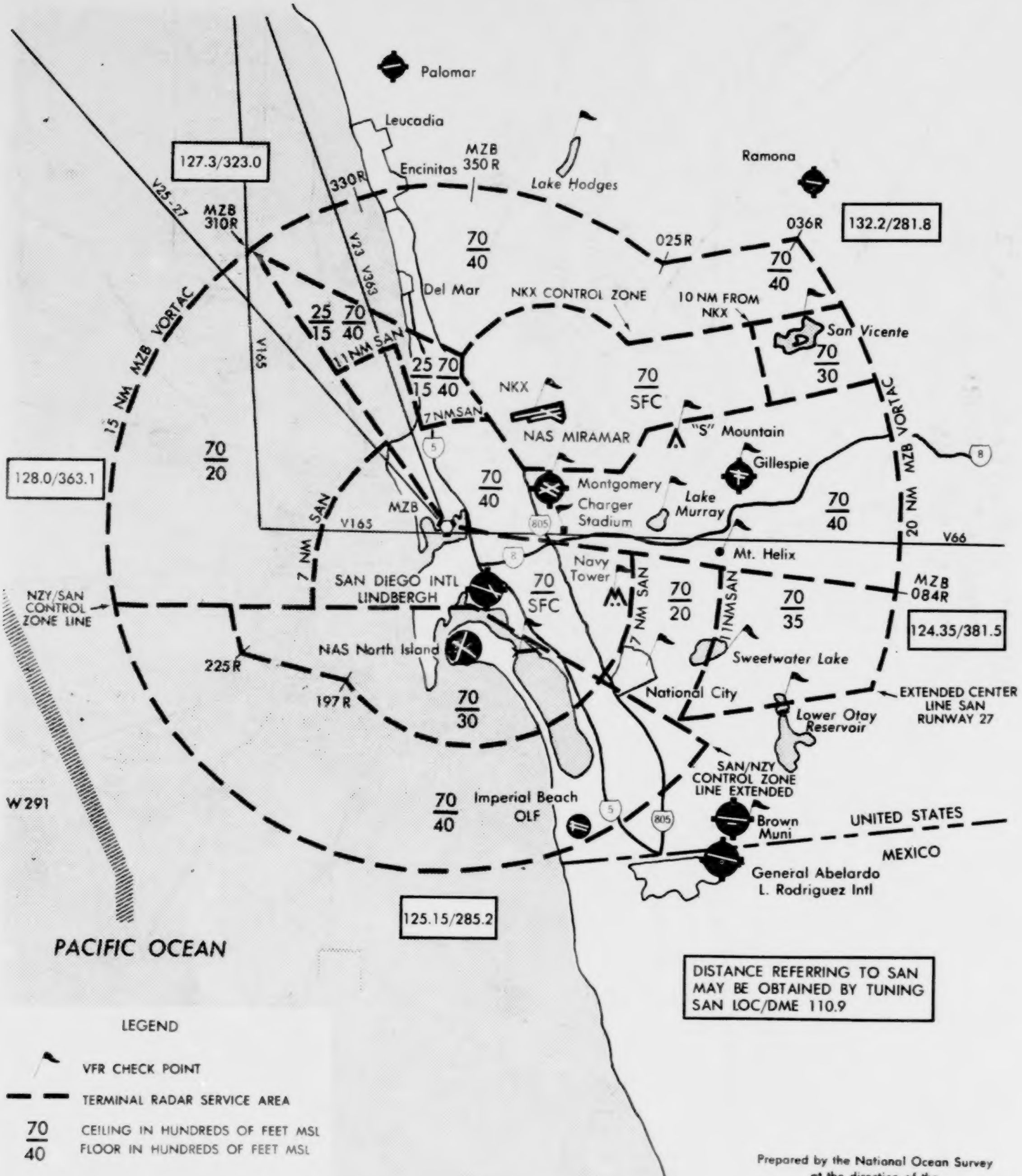
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAN DIEGO, CALIFORNIA
SAN DIEGO INTL-LINDBERGH FIELD
FIELD ELEV 15' MSL


Palomar
Leucadia
Encinitas
MZB 350 R
Lake Hodges
Ramona
127.3/323.0
V25-27
MZB 310R
330R
V23
V363
70/40
025R
036R
132.2/281.8
70/40
Del Mar
NKX CONTROL ZONE
10 NM FROM NKX
San Vicente
70/30
25/15
70/40
11NM SAN
25/15
70/40
NKX
70/SFC
15 NM MZB VORTAC
V165
7 NMSAN
NAS MIRAMAR
"S" Mountain
Gillespie
70/20
128.0/363.1
70/40
Montgomery
Charger Stadium
Lake Murray
70/40
20 NM MZB VORTAC
MZB
V165
V66
Mt. Helix
Navy Tower
7 NM SAN
SAN DIEGO INTL LINDBERGH
70/SFC
7 NM SAN
70/20
11NMSAN
70/35
MZB 084R
124.35/381.5
NZY/SAN CONTROL ZONE LINE
NAS North Island
225R
Sweetwater Lake
National City
EXTENDED CENTER LINE SAN RUNWAY 27
197R
70/30
Lower Otay Reservoir
SAN/NZY CONTROL ZONE LINE EXTENDED
W291
70/40
Imperial Beach OLF
5
805
8
Brown Muni
UNITED STATES
MEXICO
General Abelardo L. Rodriguez Intl
125.15/285.2
PACIFIC OCEAN
DISTANCE REFERRING TO SAN MAY BE OBTAINED BY TUNING SAN LOC/DME 110.9
LEGEND
VFR CHECK POINT
TERMINAL RADAR SERVICE AREA
70 CEILING IN HUNDREDS OF FEET MSL
40 FLOOR IN HUNDREDS OF FEET MSL

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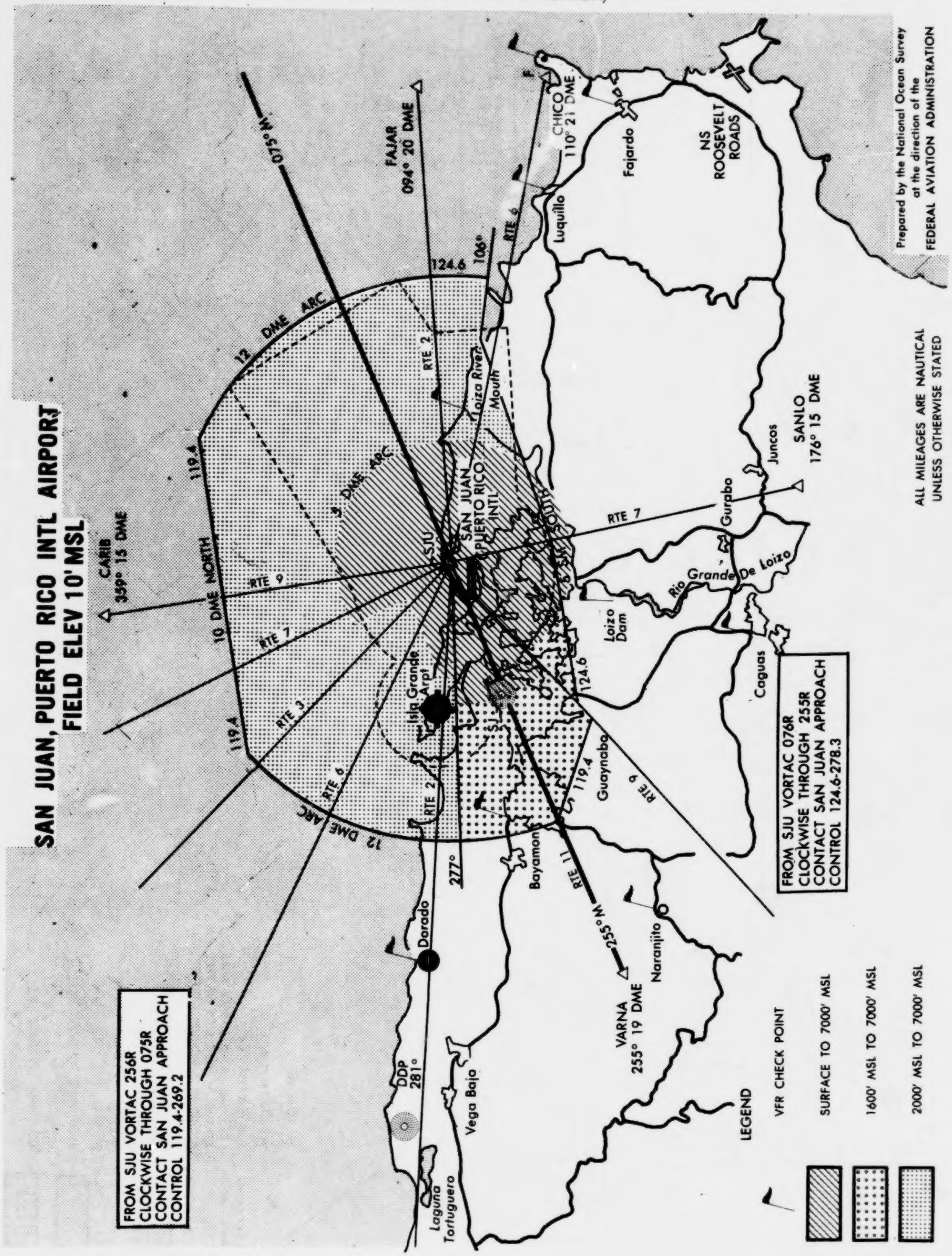
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)


SAN JUAN, PUERTO RICO INTL AIRPORT
FIELD ELEV 10' MSL

FROM SJU VORTAC 256R
CLOCKWISE THROUGH 075R
CONTACT SAN JUAN APPROACH
CONTROL 119.4-269.2

FROM SJU VORTAC 076R
CLOCKWISE THROUGH 255R
CONTACT SAN JUAN APPROACH
CONTROL 124.6-278.3

ALL MILEAGES ARE NAUTICAL
UNLESS OTHERWISE STATED

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LEGEND
- ▶ VFR CHECK POINT
- ▨ SURFACE TO 7000' MSL
- ▦ 1600' MSL TO 7000' MSL
- ▦ 2000' MSL TO 7000' MSL

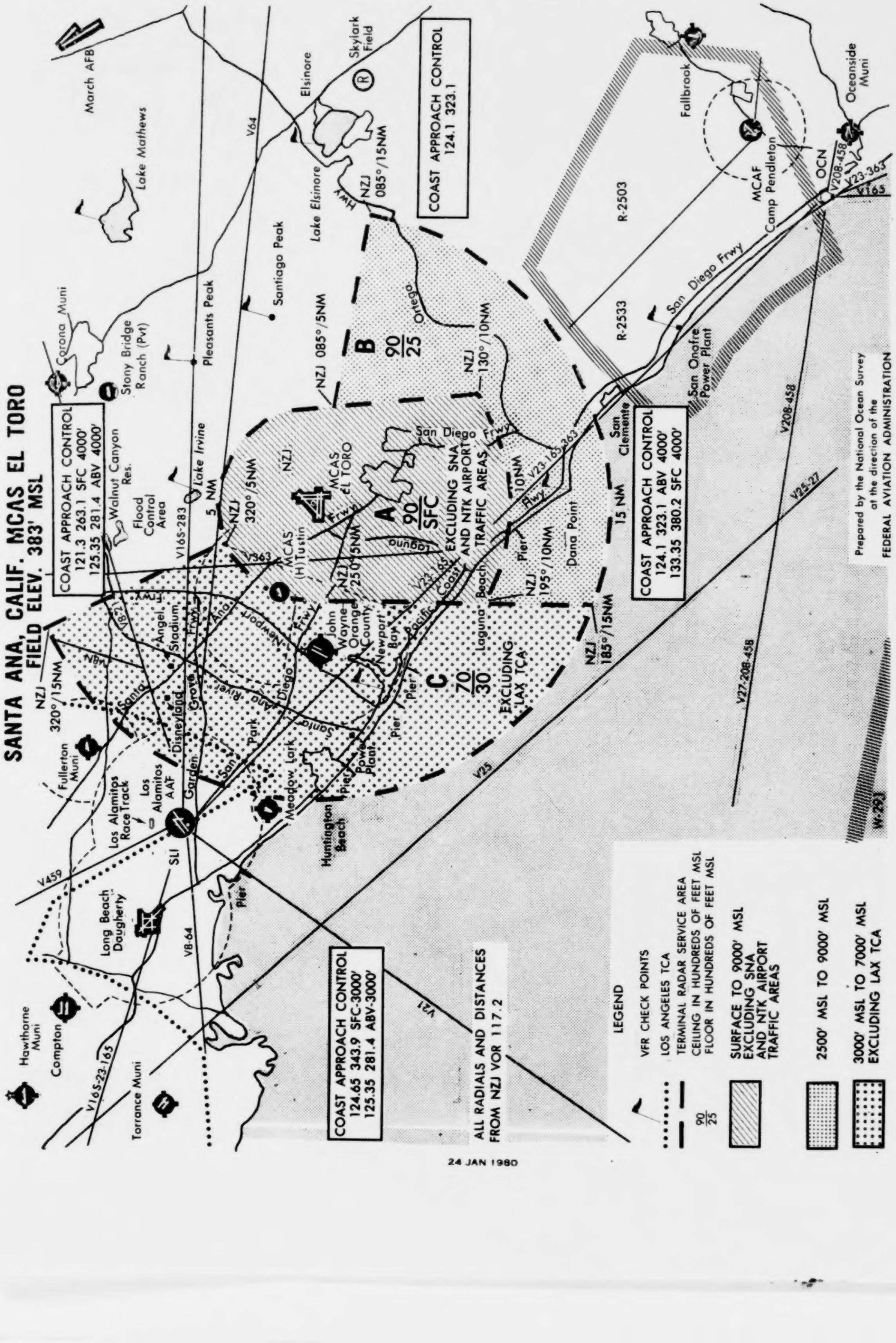
CARIB
359° 15 DME
FAJAR
094° 20 DME
CHICO
110° 21 DME
SANLO
176° 15 DME
VARNA
255° 19 DME
DDP
281°
075° M
255° M
277°
106°
12 DME ARC
10 DME NORTH
9 DME ARC
6 DME SOUTH
119.4
124.6
RTE 2
RTE 3
RTE 6
RTE 7
RTE 9
RTE 11
SJU
SAN JUAN
PUERTO RICO
INTL
SJ
Isla Grande
Arpt
Loiza River
Mouth
Luquillo
Fajardo
NS
ROOSEVELT
ROADS
Juncos
Gurabo
Rio Grande De Loizo
Loizo
Dam
Caguas
Guaynabo
Bayamon
Naranjito
Dorado
Vega Baja
Laguna
Tortuguero

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

SANTA ANA, CALIF. MCAS EL TORO

FIELD ELEV. 383' MSL


March AFB
Lake Mathews
Elsinore
Skylark Field
Lake Elsinore
Hwy
NZJ 085°/15NM
Santiago Peak
Corona Muni
Stony Bridge Ranch (Pvt)
Pleasants Peak
V64
NZJ 085°/5NM
B
90/25
Ortega
NZJ 130°/10NM
R-2503
R-2533
Fallbrook
MCAF Camp Pendleton
Oceanside Muni
OCN
V208-458
V23-363
V165
San Diego Frwy
San Onofre Power Plant
San Clemente
15 NM
V208-458
V25-27
V27-208-458
W-291
Walnut Canyon Res.
Flood Control Area
Lake Irvine
V165-283
5 NM
NZJ 320°/5NM
NZJ
MCAS El TORO
A
90/SFC
EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
San Diego Frwy
10NM
Frwy
V23-165-363
Laguna
MCAS (H)Tustin
NZJ 250°/5NM
V363
V23-165
Coast
Pier
NZJ 195°/10NM
Dana Point
Laguna Beach
NZJ 185°/15NM
Fullerton Muni
NZJ 320°/15NM
Santa
Angel Stadium
Frwy
V8-21
Disneyland
Garden Grove
Frwy
Ana
Newport
Frwy
John Wayne-Orange County
Newport Bay
Pacific
Santa Ana River
San Diego
C
70/30
EXCLUDING LAX TCA
Los Alamitos Race Track
Los Alamitos AAF
Santa Park
Meadow Lark
Pier
Power Plant
Pier
Pier
Huntington Beach
V25
V459
SLI
Long Beach Daugherty
V8-64
Pier
Hawthorne Muni
Compton
Torrance Muni
V165-23-165
V21

COAST APPROACH CONTROL
121.3 263.1 SFC 4000'
125.35 281.4 ABV 4000'

COAST APPROACH CONTROL
124.1 323.1

COAST APPROACH CONTROL
124.1 323.1 ABV 4000'
133.35 380.2 SFC 4000'

COAST APPROACH CONTROL
124.65 343.9 SFC-3000'
125.35 281.4 ABV-3000'

ALL RADIALS AND DISTANCES FROM NZJ VOR 117.2

LEGEND

- ⚑ VFR CHECK POINTS
- ········ LOS ANGELES TCA
- ▬ ▬ TERMINAL RADAR SERVICE AREA
- 90/25 CEILING IN HUNDREDS OF FEET MSL / FLOOR IN HUNDREDS OF FEET MSL
- ▨ SURFACE TO 9000' MSL EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
- ▩ 2500' MSL TO 9000' MSL
- ⁘ 3000' MSL TO 7000' MSL EXCLUDING LAX TCA

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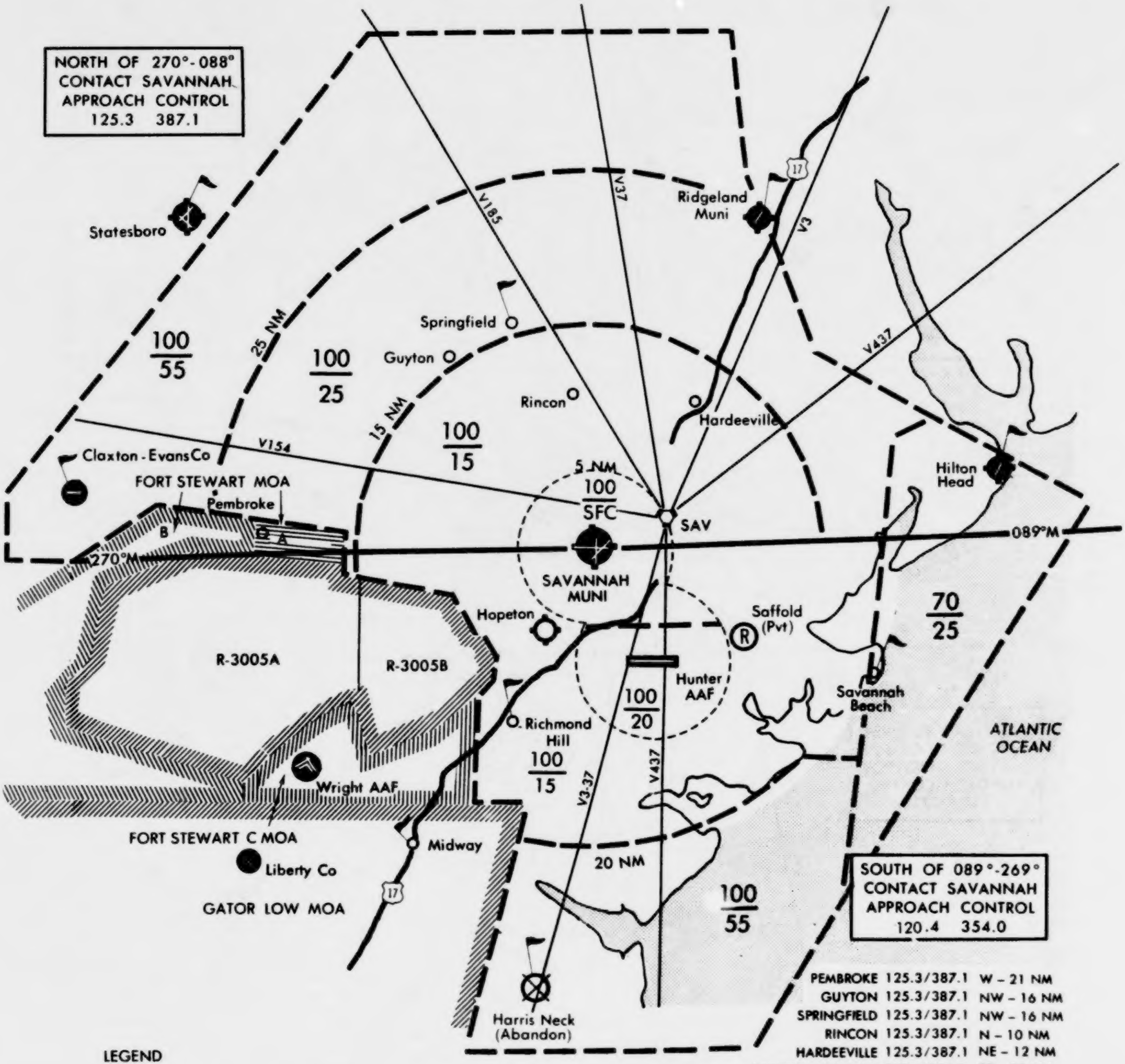
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAVANNAH, GEORGIA
SAVANNAH MUNICIPAL AIRPORT
FIELD ELEV 50' MSL


NORTH OF 270°-088°
CONTACT SAVANNAH
APPROACH CONTROL
125.3 387.1
Statesboro
Springfield
Guyton
Rincon
Ridgeland Muni
Hardeeville
Hilton Head
17
V3
V37
V185
V437
V154
25 NM
15 NM
5 NM
20 NM
100/55
100/25
100/15
100/SFC
100/20
70/25
SAV
089°M
270°M
Claxton - EvansCo
FORT STEWART MOA
Pembroke
A
B
SAVANNAH MUNI
Hopeton
Saffold (Pvt)
R
R-3005A
R-3005B
Hunter AAF
Savannah Beach
ATLANTIC OCEAN
Richmond Hill
Wright AAF
FORT STEWART C MOA
V3-37
Midway
Liberty Co
GATOR LOW MOA
Harris Neck (Abandon)
SOUTH OF 089°-269°
CONTACT SAVANNAH
APPROACH CONTROL
120.4 354.0

LEGEND

$\frac{100}{25}$ CEILING IN HUNDREDS OF FEET MSL / FLOOR IN HUNDREDS OF FEET MSL

VFR CHECK POINTS

PEMBROKE	125.3/387.1	W - 21 NM
GUYTON	125.3/387.1	NW - 16 NM
SPRINGFIELD	125.3/387.1	NW - 16 NM
RINCON	125.3/387.1	N - 10 NM
HARDEEVILLE	125.3/387.1	NE - 12 NM
SAVANNAH BEACH	120.4/354.0	SE - 20 NM
RICHMOND HILL	120.4/354.0	SW - 12 NM
HARRIS NECK (ABANDONED)	120.4/354.0	S - 29 NM
MIDWAY	120.4/354.0	SW - 22 NM

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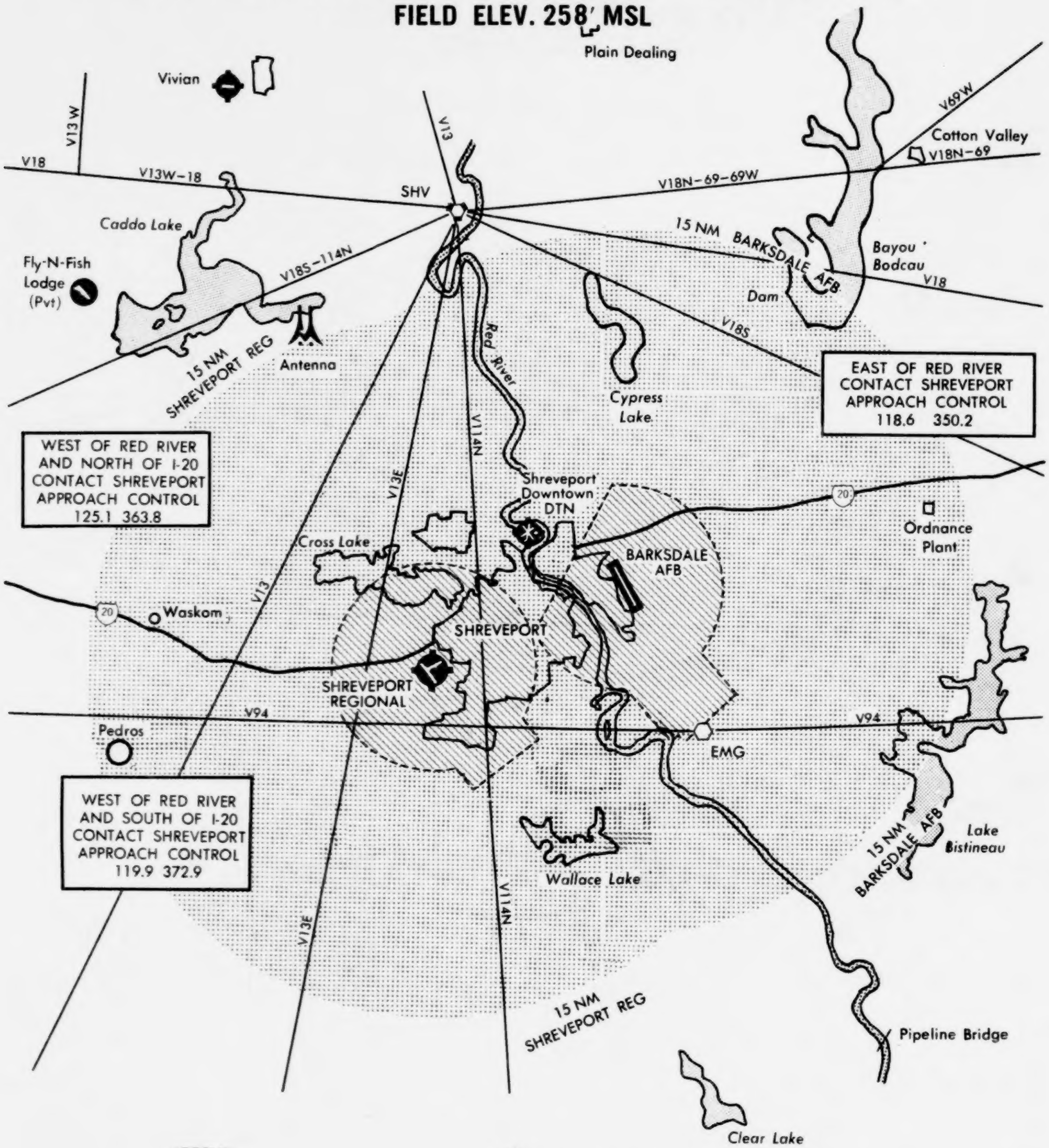
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SHREVEPORT, LOUISIANA, SHREVEPORT REGIONAL ARPT
FIELD ELEV. 258' MSL


Plain Dealing
Vivian
V13W
V18
V13W-18
V13
SHV
V18N-69-69W
V69W
Cotton Valley
V18N-69
Caddo Lake
Fly-N-Fish
Lodge
(Pvt)
V18S-114N
15 NM BARKSDALE AFB
Bayou
Bodcau
V18
Dam
V18S
Antenna
15 NM SHREVEPORT REG
Red River
Cypress
Lake
V114N
V13E
Shreveport
Downtown
DTN
20
Ordnance
Plant
Cross Lake
BARKSDALE
AFB
20
Waskom
V13
SHREVEPORT
SHREVEPORT
REGIONAL
V94
Pedros
V94
EMG
15 NM BARKSDALE AFB
Lake
Bistineau
Wallace Lake
V114N
V13E
15 NM
SHREVEPORT REG
Pipeline Bridge
Clear Lake

EAST OF RED RIVER
CONTACT SHREVEPORT
APPROACH CONTROL
118.6 350.2

WEST OF RED RIVER
AND NORTH OF I-20
CONTACT SHREVEPORT
APPROACH CONTROL
125.1 363.8

WEST OF RED RIVER
AND SOUTH OF I-20
CONTACT SHREVEPORT
APPROACH CONTROL
119.9 372.9

LEGEND

▨ SURFACE TO 5000' MSL WITHIN AIRPORT CONTROL ZONE

░ 2000' MSL THROUGH 5000' MSL

De Soto Parish

INSERT IN
GRAPHIC NOTICES

Prepared by the National Ocean Survey
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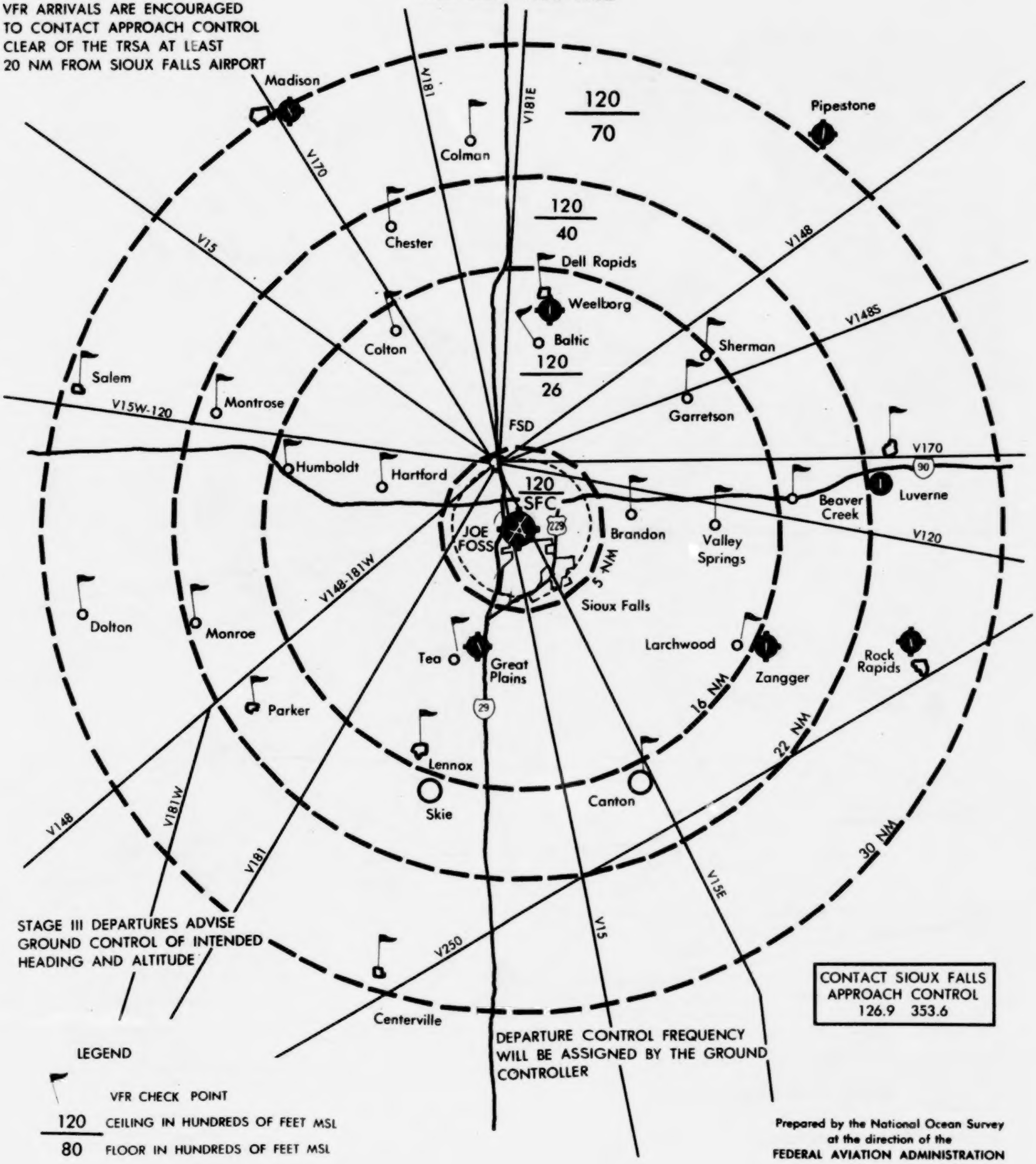
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SIOUX FALLS, SOUTH DAKOTA
JOE FOSS AIRPORT
FIELD ELEV 1429' MSL


Madison
V181
V181E
120
70
Pipestone
Colman
V170
120
40
Chester
V15
V148
Dell Rapids
Weelborg
V148S
Colton
Baltic
Sherman
120
26
Salem
Montrose
Garretson
V15W-120
FSD
V170
90
Humboldt
Hartford
120
SFC
Beaver Creek
Luverne
JOE FOSS
229
Brandon
Valley Springs
V120
5 NM
V148-181W
Sioux Falls
Dolton
Monroe
Larchwood
Tea
Great Plains
Zangger
Rock Rapids
16 NM
Parker
29
Lennox
22 NM
Skie
Canton
V148
V181W
V181
V15E
30 NM
V15
V250
Centerville

VFR ARRIVALS ARE ENCOURAGED TO CONTACT APPROACH CONTROL CLEAR OF THE TRSA AT LEAST 20 NM FROM SIOUX FALLS AIRPORT

STAGE III DEPARTURES ADVISE GROUND CONTROL OF INTENDED HEADING AND ALTITUDE

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BY THE GROUND CONTROLLER

CONTACT SIOUX FALLS
APPROACH CONTROL
126.9 353.6

LEGEND

VFR CHECK POINT

120 CEILING IN HUNDREDS OF FEET MSL

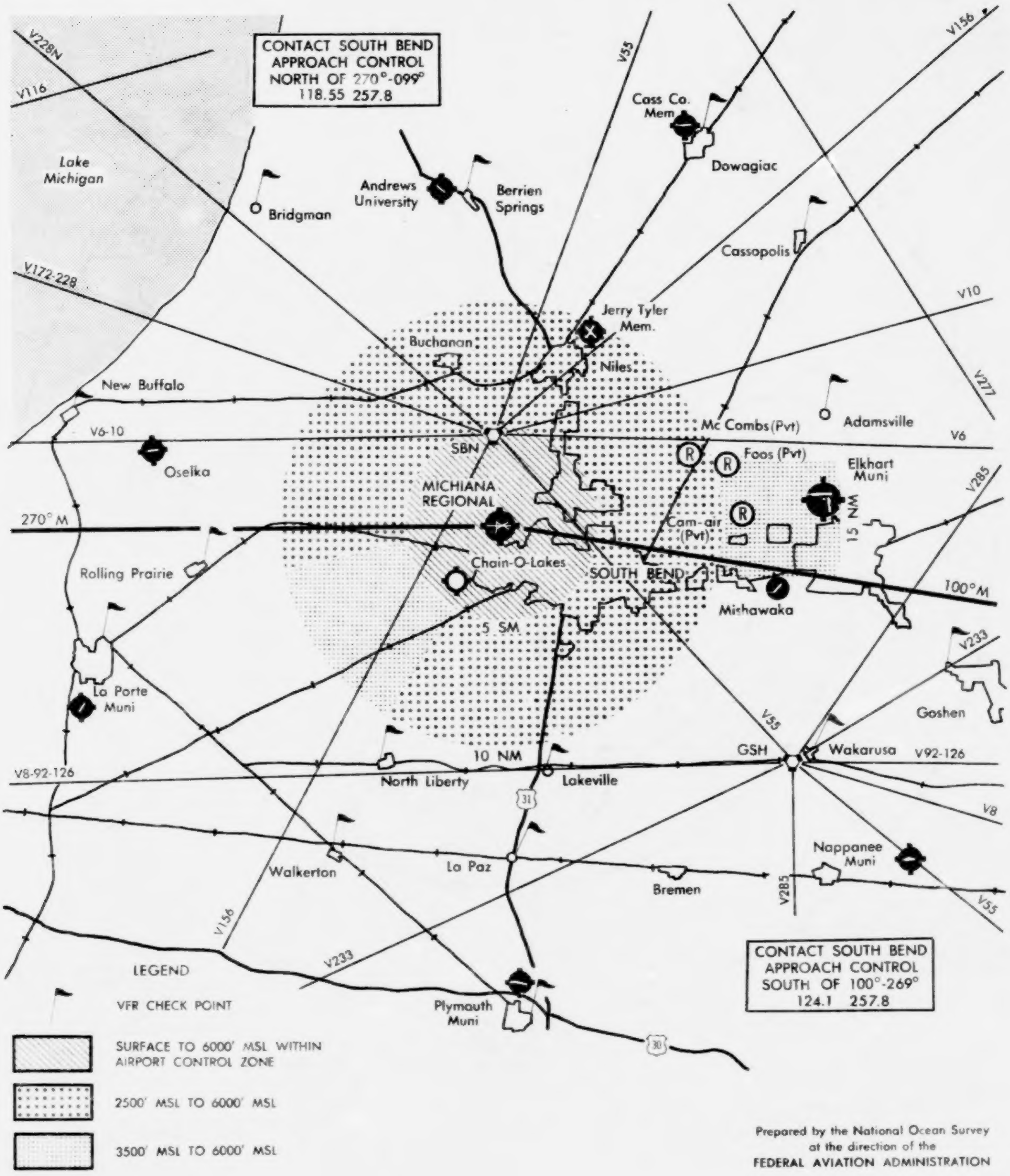
80 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SOUTH BEND, INDIANA
MICHIANA REGIONAL AIRPORT
FIELD ELEV 790′ MSL


V228N
V116
Lake Michigan
Bridgman
Andrews University
Berrien Springs
V55
Cass Co. Mem.
Dowagiac
V156
Cassopolis
V172-228
V10
Jerry Tyler Mem.
Buchanan
Niles
V277
New Buffalo
V6-10
SBN
Mc Combs (Pvt)
Adamsville
V6
Oselka
Foos (Pvt)
Elkhart Muni
V285
MICHIANA REGIONAL
270° M
Cam-air (Pvt)
15 NM
Chain-O-Lakes
Rolling Prairie
SOUTH BEND
100° M
Mishawaka
5 SM
V233
La Porte Muni
Goshen
V55
GSH
Wakarusa
V92-126
10 NM
V8-92-126
North Liberty
Lakeville
31
V8
Nappanee Muni
Walkerton
La Paz
Bremen
V285
V55
V156
V233
Plymouth Muni
30

CONTACT SOUTH BEND
APPROACH CONTROL
NORTH OF 270°-099°
118.55 257.8

CONTACT SOUTH BEND
APPROACH CONTROL
SOUTH OF 100°-269°
124.1 257.8

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE

⁙ 2500′ MSL TO 6000′ MSL

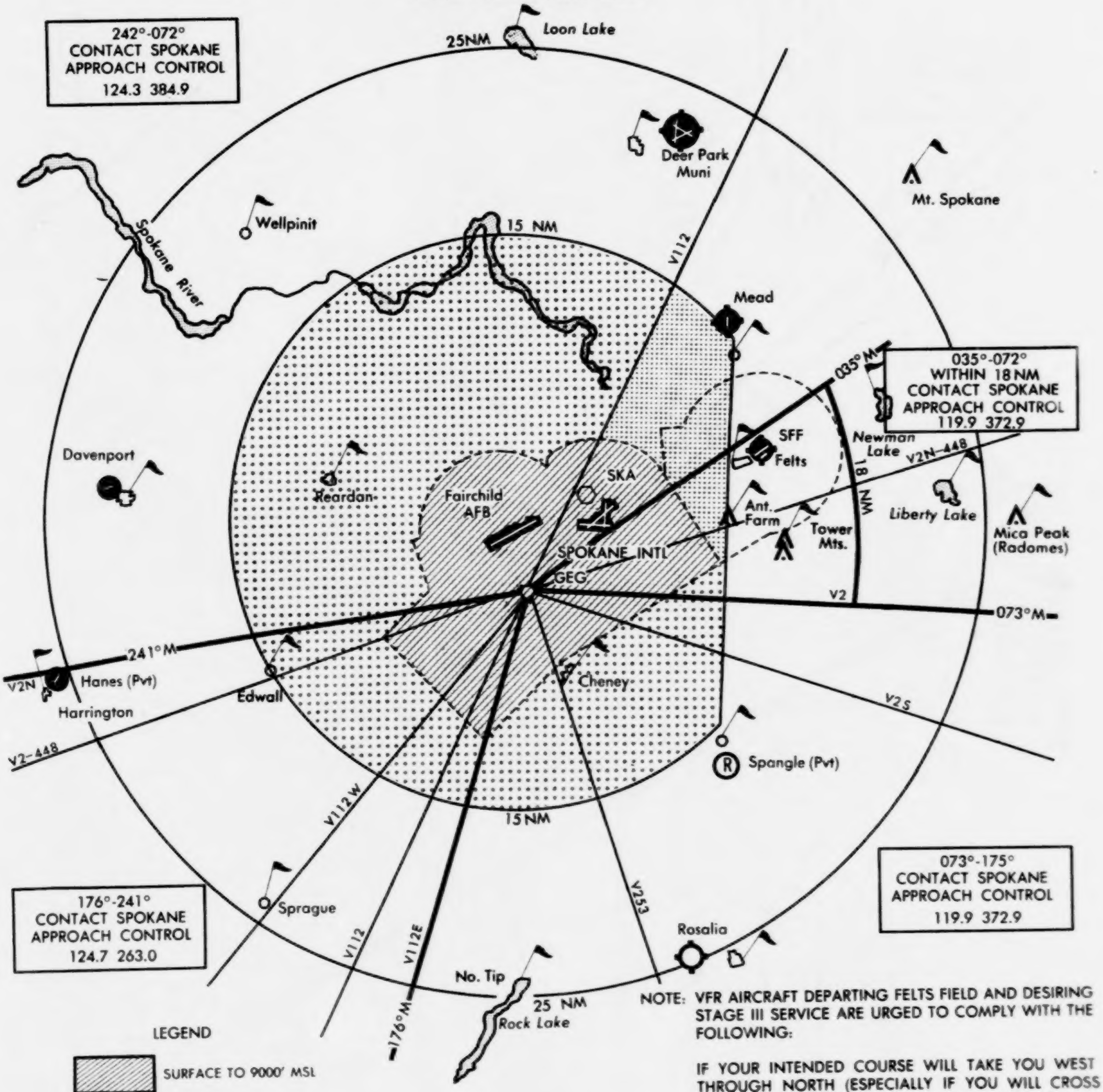
░ 3500′ MSL TO 6000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SPOKANE, WASH., SPOKANE INTL AIRPORT
FIELD ELEV. 2372′ MSL


25NM
Loon Lake
Deer Park Muni
Mt. Spokane
Wellpinit
Spokane River
15 NM
V112
Mead
035°M
Newman Lake
18 NM
V2N-448
SFF
Felts
SKA
Davenport
Reardan
Fairchild AFB
Ant. Farm
Tower Mts.
Liberty Lake
Mica Peak (Radomes)
SPOKANE INTL
GEG
V2
073°M
241°M
V2N
Hanes (Pvt)
Harrington
Edwall
Cheney
V2S
V2-448
Spangle (Pvt)
R
15NM
V112W
V253
Sprague
V112
V112E
Rosalia
No. Tip
25 NM
176°M
Rock Lake

242°-072°
CONTACT SPOKANE
APPROACH CONTROL
124.3 384.9

035°-072°
WITHIN 18 NM
CONTACT SPOKANE
APPROACH CONTROL
119.9 372.9

073°-175°
CONTACT SPOKANE
APPROACH CONTROL
119.9 372.9

176°-241°
CONTACT SPOKANE
APPROACH CONTROL
124.7 263.0

NOTE: VFR AIRCRAFT DEPARTING FELTS FIELD AND DESIRING STAGE III SERVICE ARE URGED TO COMPLY WITH THE FOLLOWING:

IF YOUR INTENDED COURSE WILL TAKE YOU WEST THROUGH NORTH (ESPECIALLY IF YOU WILL CROSS THE RUNWAY 21 FINAL APPROACH COURSE AT SPOKANE INTL) USE 124.3/384.9.

IF YOUR INTENDED COURSE WILL TAKE YOU TOWARD THE VORTAC OR THE ANTENNAS USE 119.9/372.9. IF TRANSPONDER EQUIPPED SQUAWK 1200.

LEGEND

▨ SURFACE TO 9000′ MSL

▩ 3500′ TO 9000′ MSL

⁘ 4000′ TO 9000′ MSL

☐ CALL UP AREA

⚑ VFR CHECK POINT

ATIS 127.8/269.9

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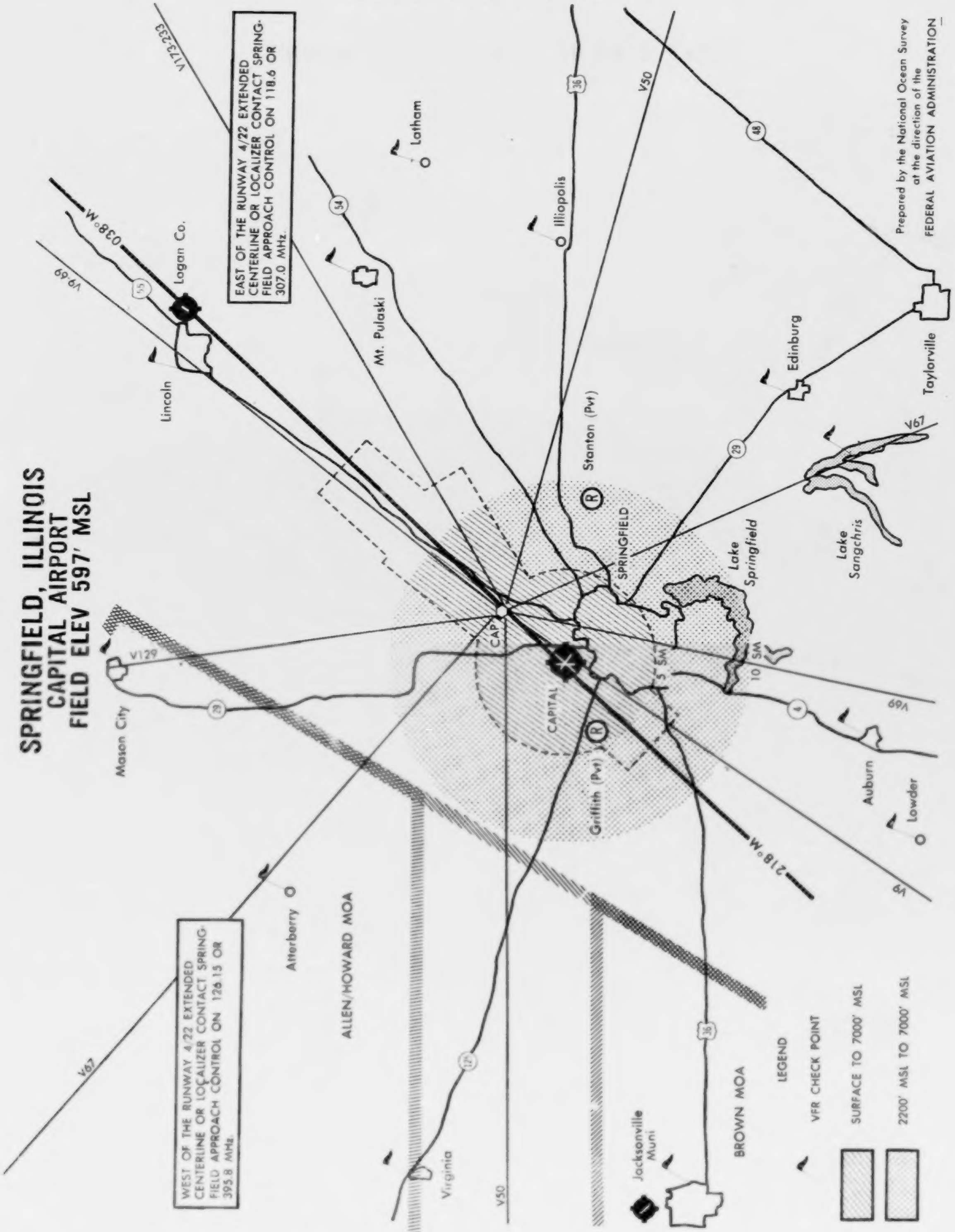
TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)


Lincoln
Logan Co.
038°M
V9-69
V173-233
55
Mt. Pulaski
54
Latham
Illiopolis
36
V50
48
Stanton (Pvt)
Edinburg
Taylorville
29
V67
SPRINGFIELD
Lake Springfield
Lake Sangchris
10 SM
5 SM
CAP
CAPITAL
Griffith (Pvt)
V69
4
Auburn
Lowder
V9
218°M
Mason City
V129
29
Atterberry
ALLEN/HOWARD MOA
V67
125
Virginia
V50
36
Jacksonville Muni
BROWN MOA

SPRINGFIELD, ILLINOIS
CAPITAL AIRPORT
FIELD ELEV 597' MSL

EAST OF THE RUNWAY 4/22 EXTENDED CENTERLINE OR LOCALIZER CONTACT SPRINGFIELD APPROACH CONTROL ON 118.6 OR 307.0 MHz.

WEST OF THE RUNWAY 4/22 EXTENDED CENTERLINE OR LOCALIZER CONTACT SPRINGFIELD APPROACH CONTROL ON 126.15 OR 395.8 MHz.

LEGEND

VFR CHECK POINT

▨ SURFACE TO 7000' MSL

▨ 2200' MSL TO 7000' MSL

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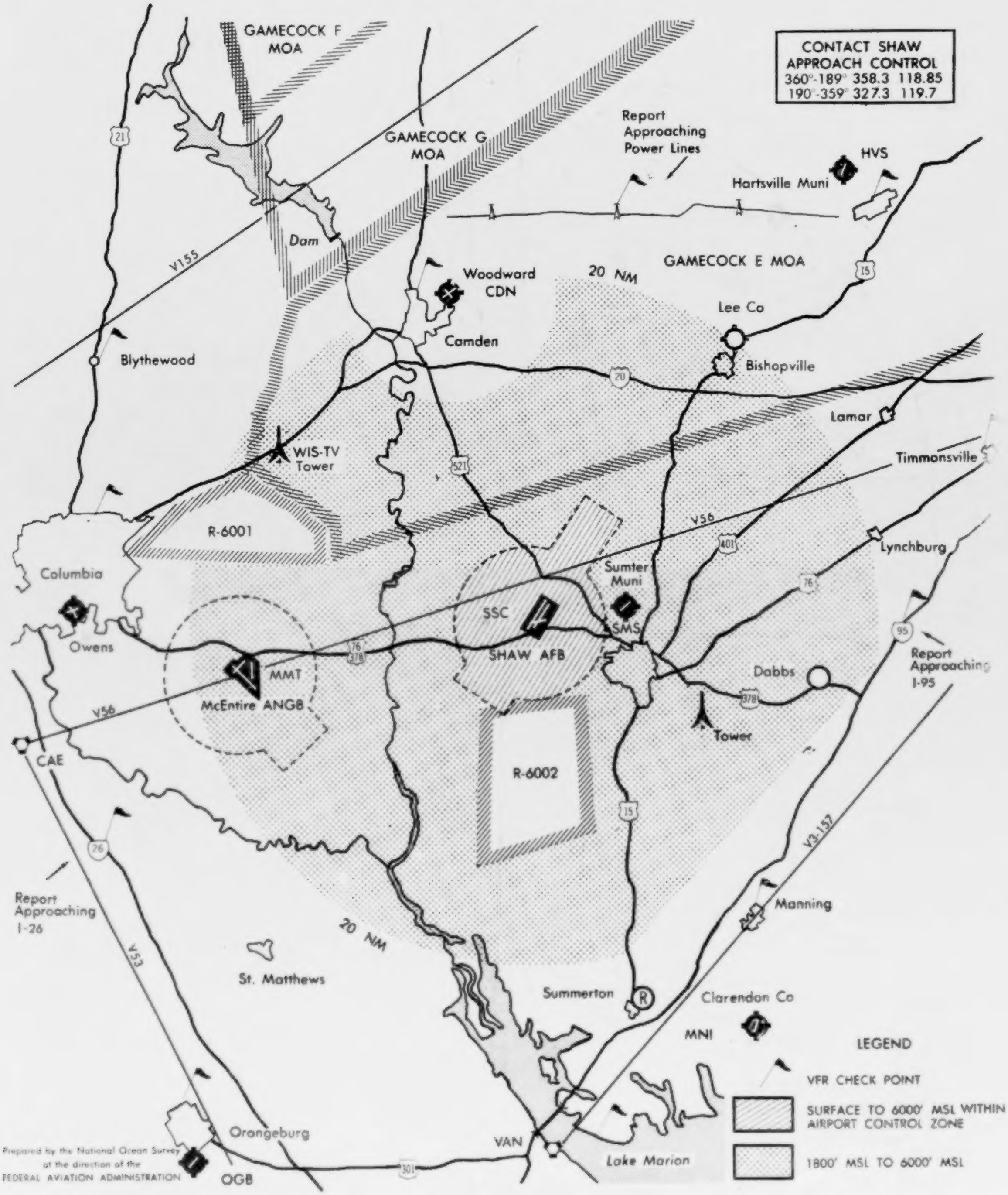
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SOUTH CAROLINA
SHAW AFB
FIELD ELEV 241′ MSL


CONTACT SHAW
APPROACH CONTROL
360°-189° 358.3 118.85
190°-359° 327.3 119.7
GAMECOCK F MOA
GAMECOCK G MOA
GAMECOCK E MOA
Report Approaching Power Lines
HVS
Hartsville Muni
21
V155
Dam
Woodward CDN
20 NM
Lee Co
15
Camden
Blythewood
Bishopville
20
Lamar
WIS-TV Tower
521
Timmonsville
R-6001
V56
401
Lynchburg
Columbia
Sumter Muni
SSC
SMS
76
Owens
76
378
SHAW AFB
95
Report Approaching I-95
MMT
Dabbs
McEntire ANGB
378
V56
Tower
CAE
R-6002
15
V3-157
26
Report Approaching I-26
Manning
20 NM
V53
St. Matthews
Summerton
R
Clarendon Co
MNI
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
1800′ MSL TO 6000′ MSL
Orangeburg
VAN
Lake Marion
301
OGB

Prepared by the National Ocean Survey
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24 JAN 1980

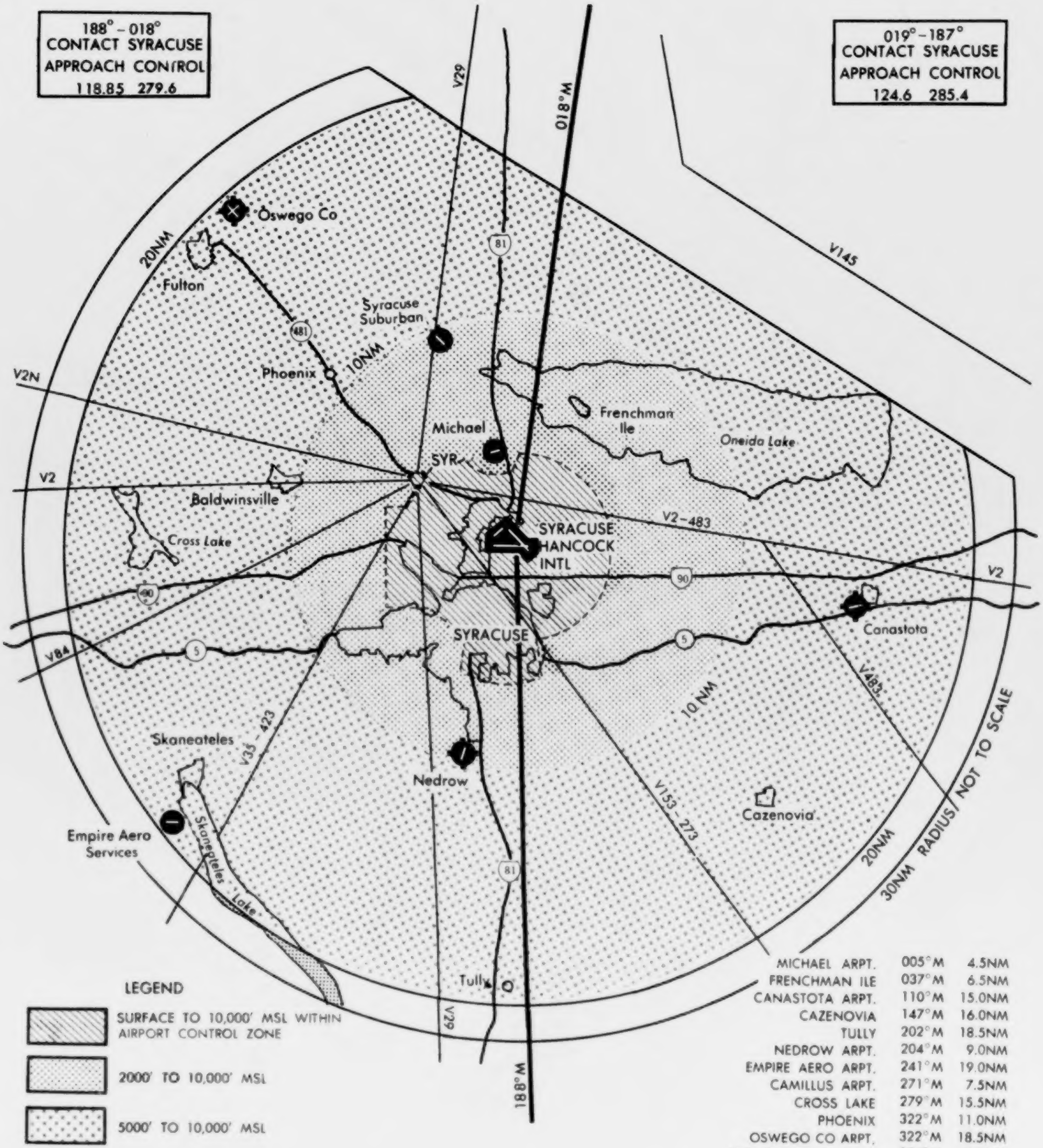
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SYRACUSE, N. Y., SYRACUSE HANCOCK INTL ARPT.

FIELD ELEV. 421′ MSL

188° - 018°
CONTACT SYRACUSE
APPROACH CONTROL
118.85 279.6

019° - 187°
CONTACT SYRACUSE
APPROACH CONTROL
124.6 285.4


V29
018°M
V145
Oswego Co
20NM
Fulton
81
Syracuse Suburban
481
Phoenix
10NM
V2N
Frenchman Ile
Oneida Lake
Michael
SYR
V2
Baldwinsville
Cross Lake
SYRACUSE HANCOCK INTL
V2-483
90
V2
Canastota
V84
5
SYRACUSE
5
V485
10 NM
Skaneateles
V35-423
Nedrow
V153-273
Cazenovia
Empire Aero Services
Skaneateles Lake
81
20NM
30NM RADIUS NOT TO SCALE
30NM
Tully
V29
188°M

LEGEND

▨	SURFACE TO 10,000′ MSL WITHIN AIRPORT CONTROL ZONE
▩	2000′ TO 10,000′ MSL
░	5000′ TO 10,000′ MSL
☐	OTHER SERVICES

MICHAEL ARPT.	005°M	4.5NM
FRENCHMAN ILE	037°M	6.5NM
CANASTOTA ARPT.	110°M	15.0NM
CAZENOVIA	147°M	16.0NM
TULLY	202°M	18.5NM
NEDROW ARPT.	204°M	9.0NM
EMPIRE AERO ARPT.	241°M	19.0NM
CAMILLUS ARPT.	271°M	7.5NM
CROSS LAKE	279°M	15.5NM
PHOENIX	322°M	11.0NM
OSWEGO CO ARPT.	322°M	18.5NM
SYR. SUBURBAN ARPT.	354°M	9.5NM

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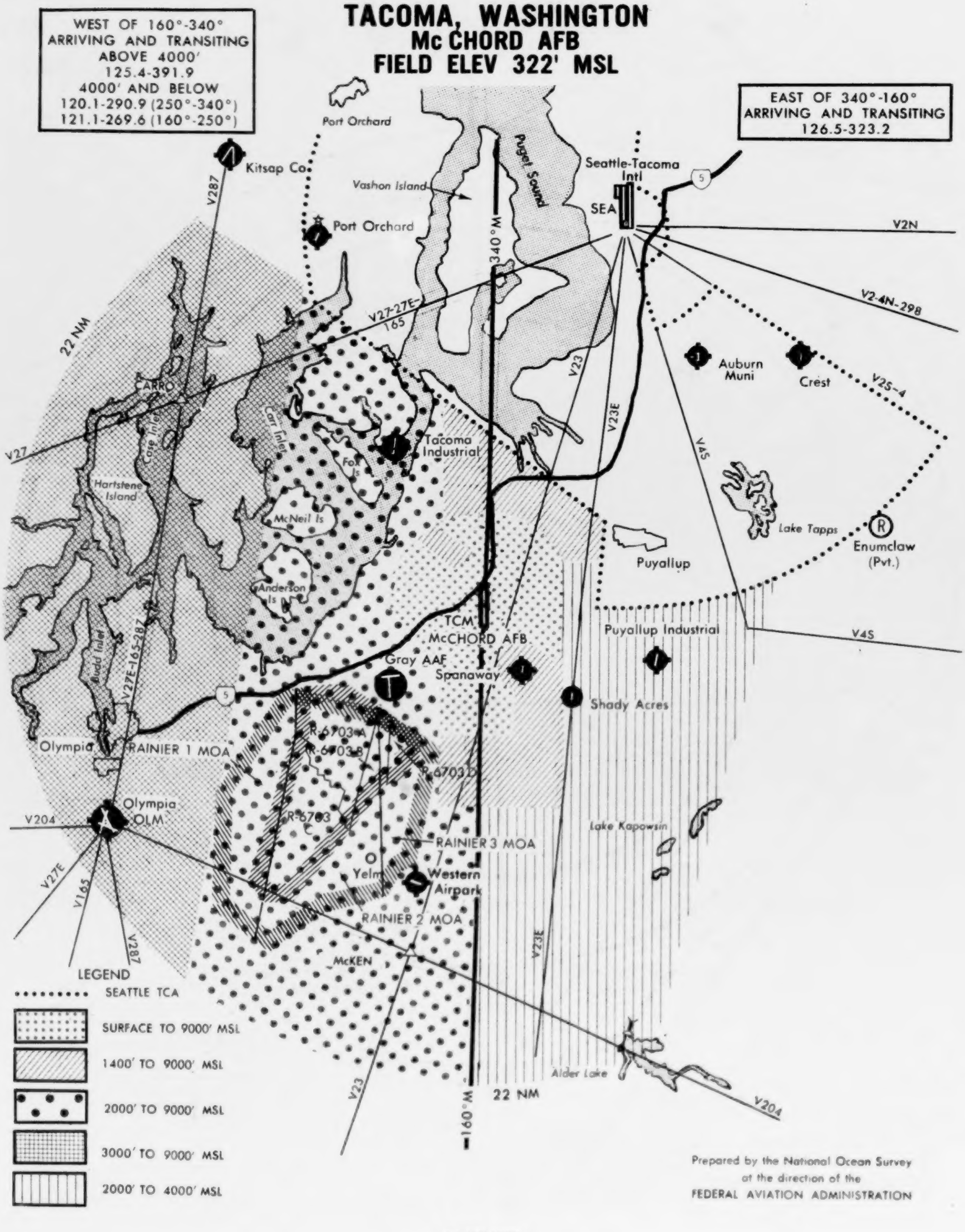
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TACOMA, WASHINGTON
Mc CHORD AFB
FIELD ELEV 322' MSL



WEST OF 160°-340°
ARRIVING AND TRANSITING
ABOVE 4000′
125.4-391.9
4000′ AND BELOW
120.1-290.9 (250°-340°)
121.1-269.6 (160°-250°)

EAST OF 340°-160°
ARRIVING AND TRANSITING
126.5-323.2

Port Orchard
Kitsap Co
Vashon Island
Puget Sound
Port Orchard
Seattle-Tacoma Intl
SEA
5
V2N
V2-4N-298
340°M
V287
22 NM
V27-27E-165
CARRO
Case Inlet
Carr Inlet
Hartstene Island
V27
Tacoma Industrial
Fox Is
McNeil Is
Anderson Is
V23
V23E
Auburn Muni
Crest
V25-4
VAS
Lake Tapps
Enumclaw (Pvt.)
Puyallup
Puyallup Industrial
V4S
TCM
McCHORD AFB
Gray AAF
Spanaway
Shady Acres
Budd Inlet
V27E-165-287
5
Olympia
RAINIER 1 MOA
R-6703 A
R-6703 B
R-6703 D
R-6703 C
Olympia OLM
V204
RAINIER 3 MOA
Yelm
Western Airpark
RAINIER 2 MOA
Lake Kapowsin
V27E
V165
V287
McKEN
V23E
V23
Alder Lake
V204
160°M
22 NM

LEGEND

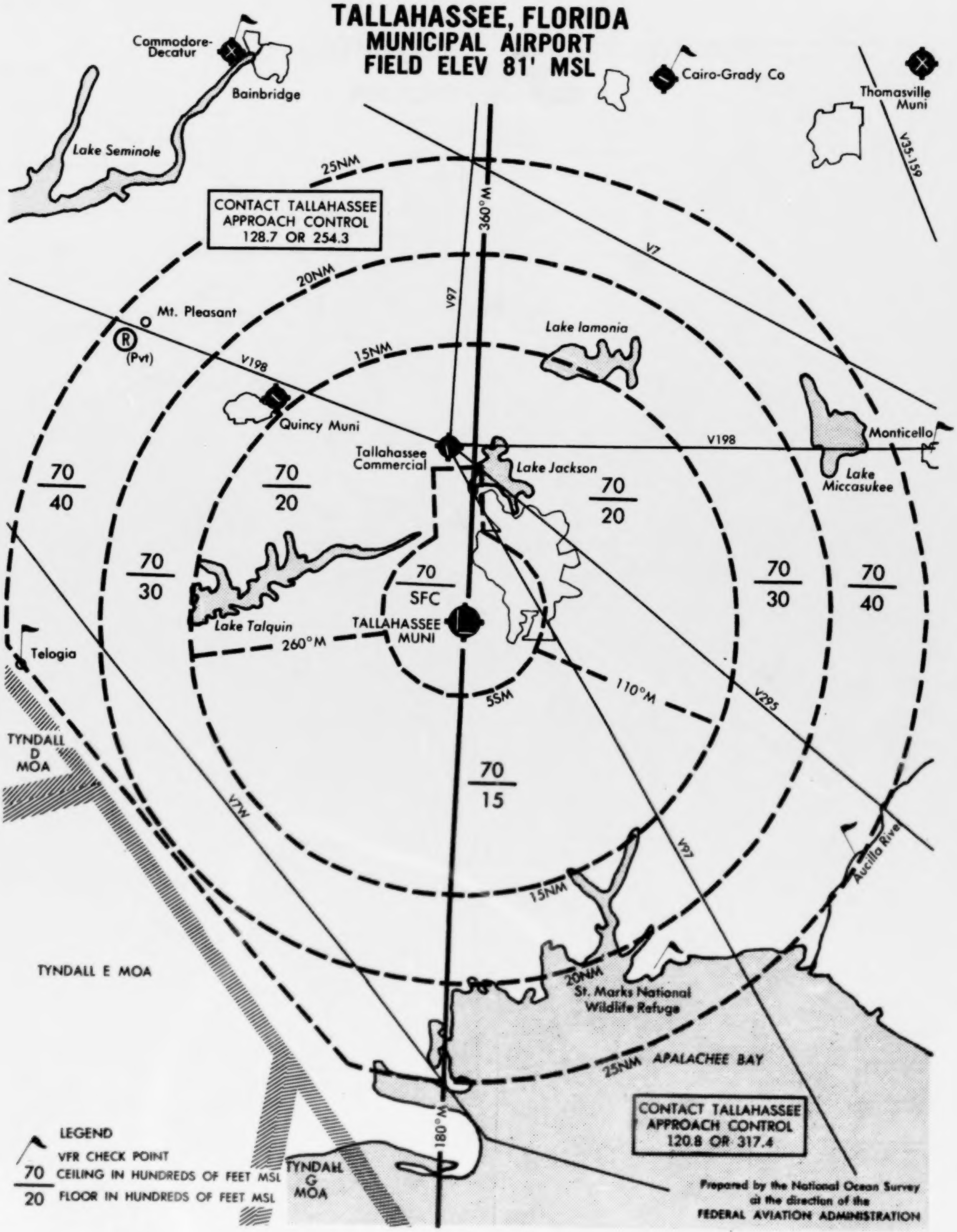
- ⋯⋯ SEATTLE TCA
- ▨ SURFACE TO 9000′ MSL
- ▨ 1400′ TO 9000′ MSL
- ● 2000′ TO 9000′ MSL
- ▦ 3000′ TO 9000′ MSL
- ▥ 2000′ TO 4000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TALLAHASSEE, FLORIDA
MUNICIPAL AIRPORT
FIELD ELEV 81' MSL


Commodore-Decatur
Bainbridge
Lake Seminole
Cairo-Grady Co
Thomasville Muni
V35-159
25NM
20NM
15NM
5SM
360°M
260°M
110°M
180°M
V7
V97
V198
V295
V7W
Mt. Pleasant
R (Pvt)
Quincy Muni
Lake Iamonia
Tallahassee Commercial
Lake Jackson
Monticello
Lake Miccasukee
Lake Talquin
TALLAHASSEE MUNI
Telogia
TYNDALL D MOA
TYNDALL E MOA
TYNDALL G MOA
Aucilla River
St. Marks National Wildlife Refuge
APALACHEE BAY
70/40
70/30
70/20
70/SFC
70/15
70/20
70/30
70/40
LEGEND
VFR CHECK POINT
70 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

CONTACT TALLAHASSEE
APPROACH CONTROL
128.7 OR 254.3

CONTACT TALLAHASSEE
APPROACH CONTROL
120.8 OR 317.4

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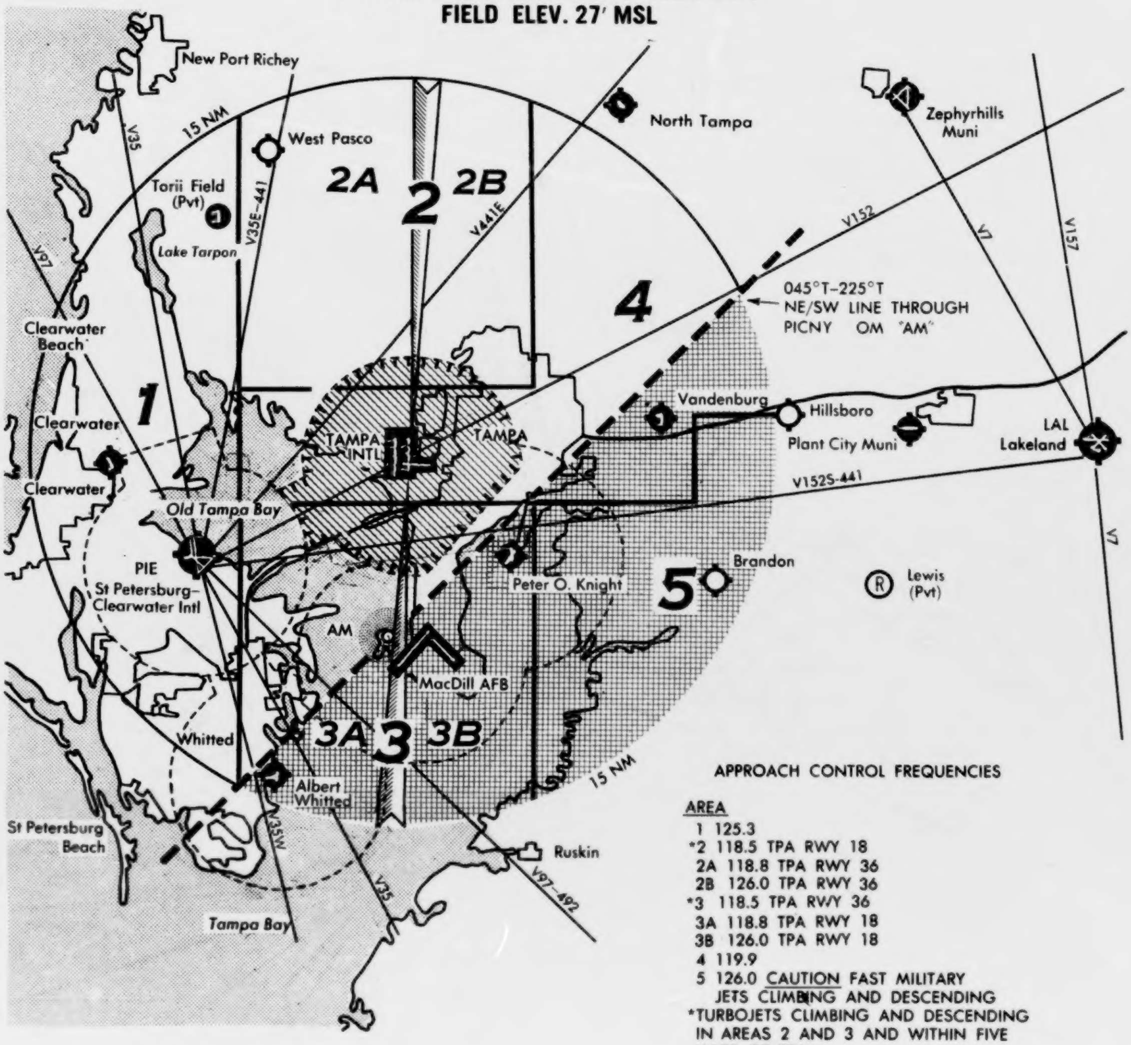
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA
TAMPA INTERNATIONAL AIRPORT
FIELD ELEV. 27′ MSL


New Port Richey
15 NM
V35
West Pasco
Torii Field (Pvt)
Lake Tarpon
V35E-441
2A
2
2B
V441E
North Tampa
Zephyrhills Muni
V152
V7
V157
V97
4
045°T-225°T
NE/SW LINE THROUGH
PICNY OM "AM"
Clearwater Beach
1
Clearwater
Clearwater
Old Tampa Bay
TAMPA INTL
TAMPA
Vandenburg
Hillsboro
Plant City Muni
LAL
Lakeland
V152S-441
PIE
St Petersburg-Clearwater Intl
Peter O. Knight
5
Brandon
Lewis (Pvt)
AM
MacDill AFB
Whitted
3A
3
3B
15 NM
Albert Whitted
V35W
St Petersburg Beach
V35
Ruskin
V97-492
Tampa Bay

APPROACH CONTROL FREQUENCIES

AREA
1 125.3
*2 118.5 TPA RWY 18
2A 118.8 TPA RWY 36
2B 126.0 TPA RWY 36
*3 118.5 TPA RWY 36
3A 118.8 TPA RWY 18
3B 126.0 TPA RWY 18
4 119.9
5 126.0 CAUTION FAST MILITARY
JETS CLIMBING AND DESCENDING
*TURBOJETS CLIMBING AND DESCENDING
IN AREAS 2 AND 3 AND WITHIN FIVE
MILES OF TPA
NOTE-TPA ATIS 126.45 FOR RUNWAY IN USE

CHANGE TRANSPONDER TO CODE 1200
AFTER LEAVING APPROACH CONTROL FREQUENCY

LEGEND

▨	SURFACE TO 6000′ MSL WITHIN CONTROL ZONE
▦	2100′ MSL TO 6000′ MSL
☐	1600′ MSL TO 6000′ MSL

VFR REPORTING POINTS

RUSKIN	SSE - 16 NM
PLANT CITY	ENE - 21 NM
TAMPA DOWNS AIRPORT	NE - 17 NM
NEW PORT RICHEY	NW - 19 NM
CLEARWATER BEACH	W - 17 NM
PETERSBURG BEACH	SW - 18 NM

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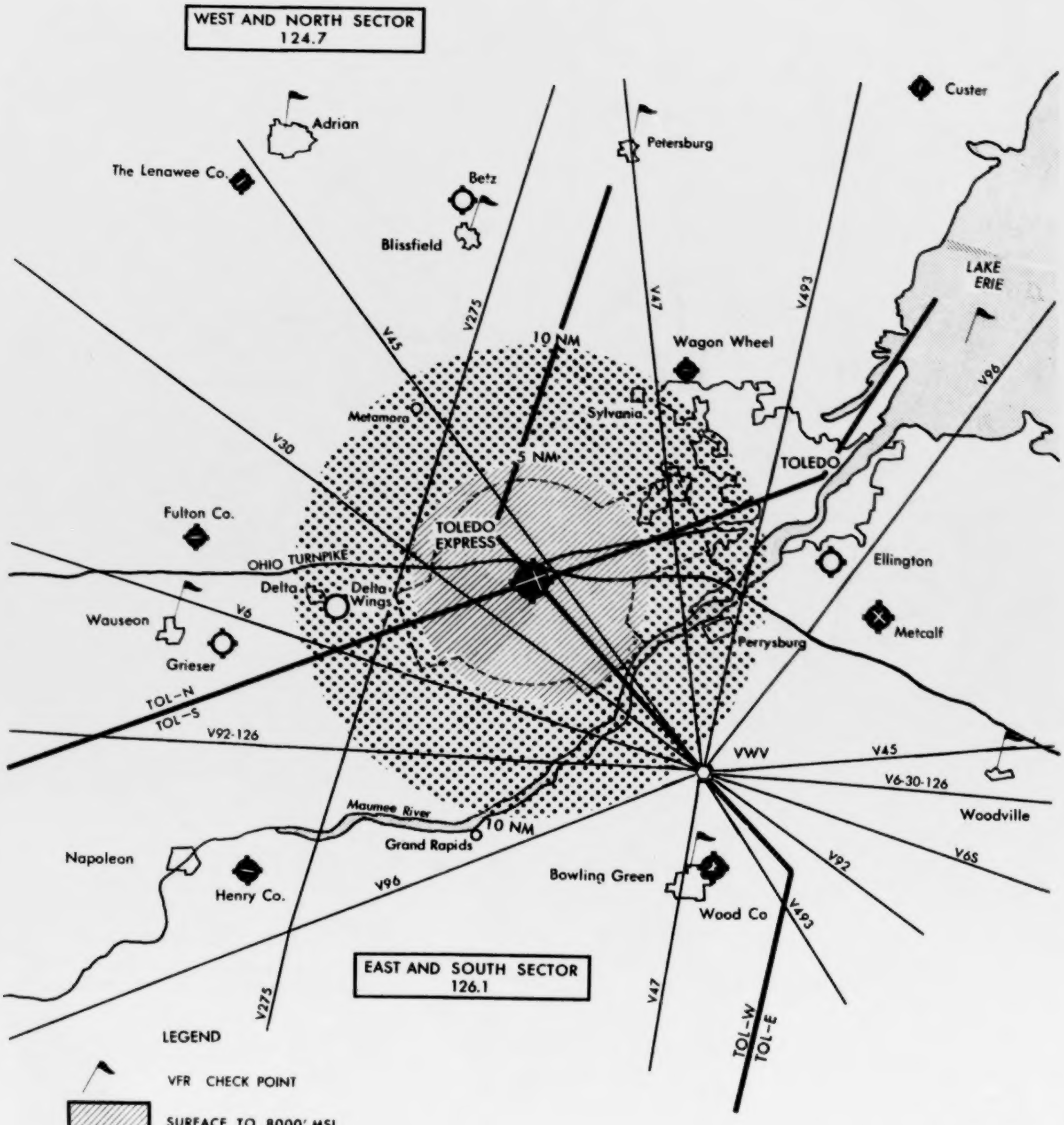
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TOLEDO, OHIO, TOLEDO EXPRESS ARPT
FIELD ELEV. 684' MSL

ATIS 118.75


WEST AND NORTH SECTOR
124.7
Custer
Adrian
Petersburg
The Lenawee Co.
Betz
Blissfield
LAKE ERIE
V493
V47
V275
V45
10 NM
Wagon Wheel
V96
Metamora
Sylvania
V30
5 NM
TOLEDO
Fulton Co.
TOLEDO EXPRESS
OHIO TURNPIKE
Ellington
Delta
Delta Wings
Wauseon
V6
Metcalf
Perrysburg
Grieser
TOL-N
TOL-S
V92-126
VWV
V45
V6-30-126
Woodville
Maumee River
10 NM
Grand Rapids
Napoleon
V92
V65
Henry Co.
Bowling Green
V96
Wood Co
V493
EAST AND SOUTH SECTOR
126.1
V275
V47
TOL-W
TOL-E

LEGEND

VFR CHECK POINT

▨ SURFACE TO 8000' MSL

░ 2500' TO 8000' MSL

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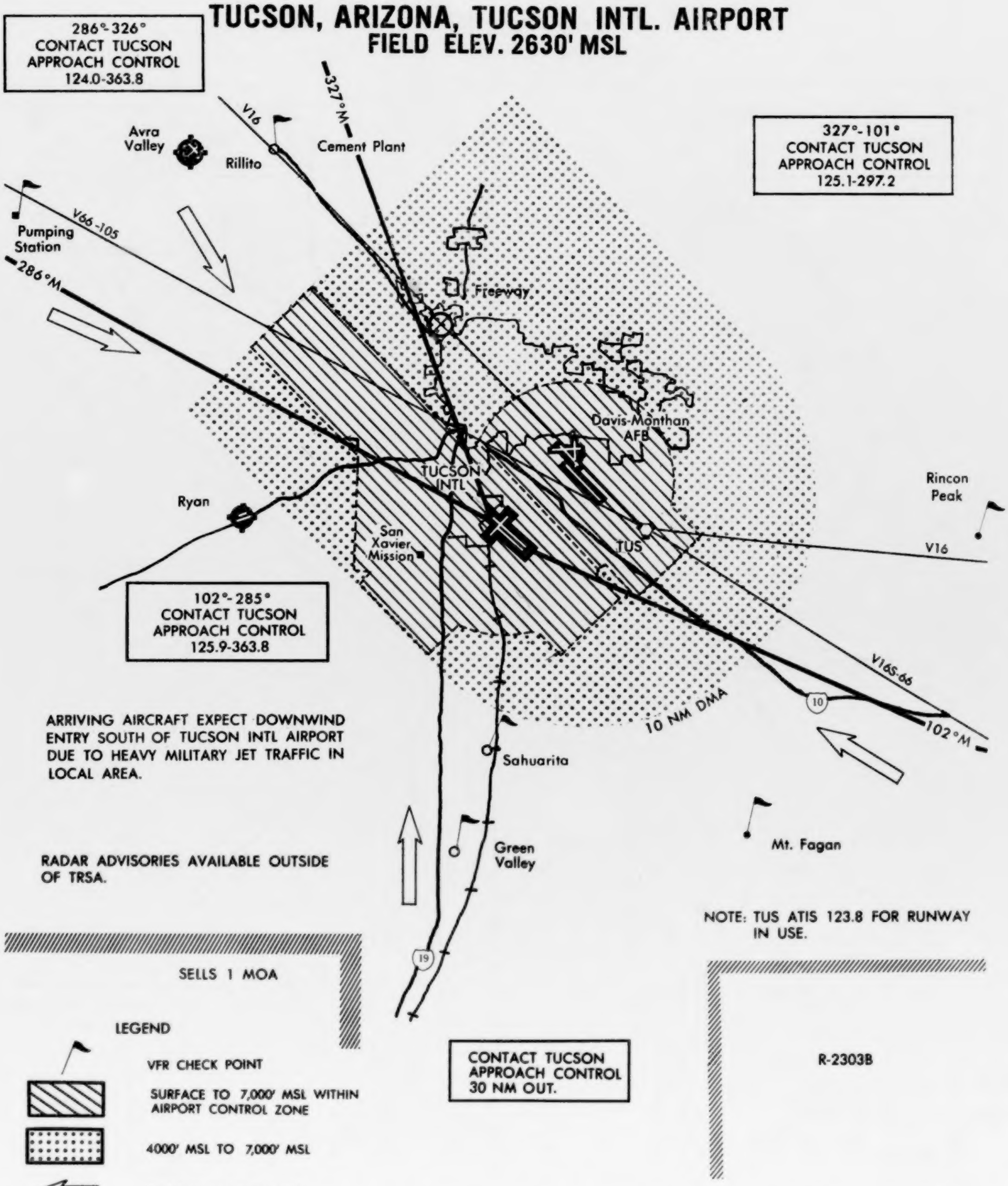
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TUCSON, ARIZONA, TUCSON INTL. AIRPORT
FIELD ELEV. 2630' MSL


286°-326°
CONTACT TUCSON APPROACH CONTROL 124.0-363.8
327°-101°
CONTACT TUCSON APPROACH CONTROL 125.1-297.2
102°-285°
CONTACT TUCSON APPROACH CONTROL 125.9-363.8
CONTACT TUCSON APPROACH CONTROL 30 NM OUT.
327°M
V16
Avra Valley
Rillito
Cement Plant
Pumping Station
V66-105
286°M
Freeway
Davis-Monthan AFB
TUCSON INTL
Ryan
San Xavier Mission
TUS
Rincon Peak
V16
V16S-66
10
102°M
10 NM DMA
Sahuarita
Green Valley
Mt. Fagan
19
SELLS 1 MOA
R-2303B

ARRIVING AIRCRAFT EXPECT DOWNWIND ENTRY SOUTH OF TUCSON INTL AIRPORT DUE TO HEAVY MILITARY JET TRAFFIC IN LOCAL AREA.

RADAR ADVISORIES AVAILABLE OUTSIDE OF TRSA.

NOTE: TUS ATIS 123.8 FOR RUNWAY IN USE.

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 7,000' MSL WITHIN AIRPORT CONTROL ZONE
░	4000' MSL TO 7,000' MSL
⇦	SUGGESTED VFR ROUTES

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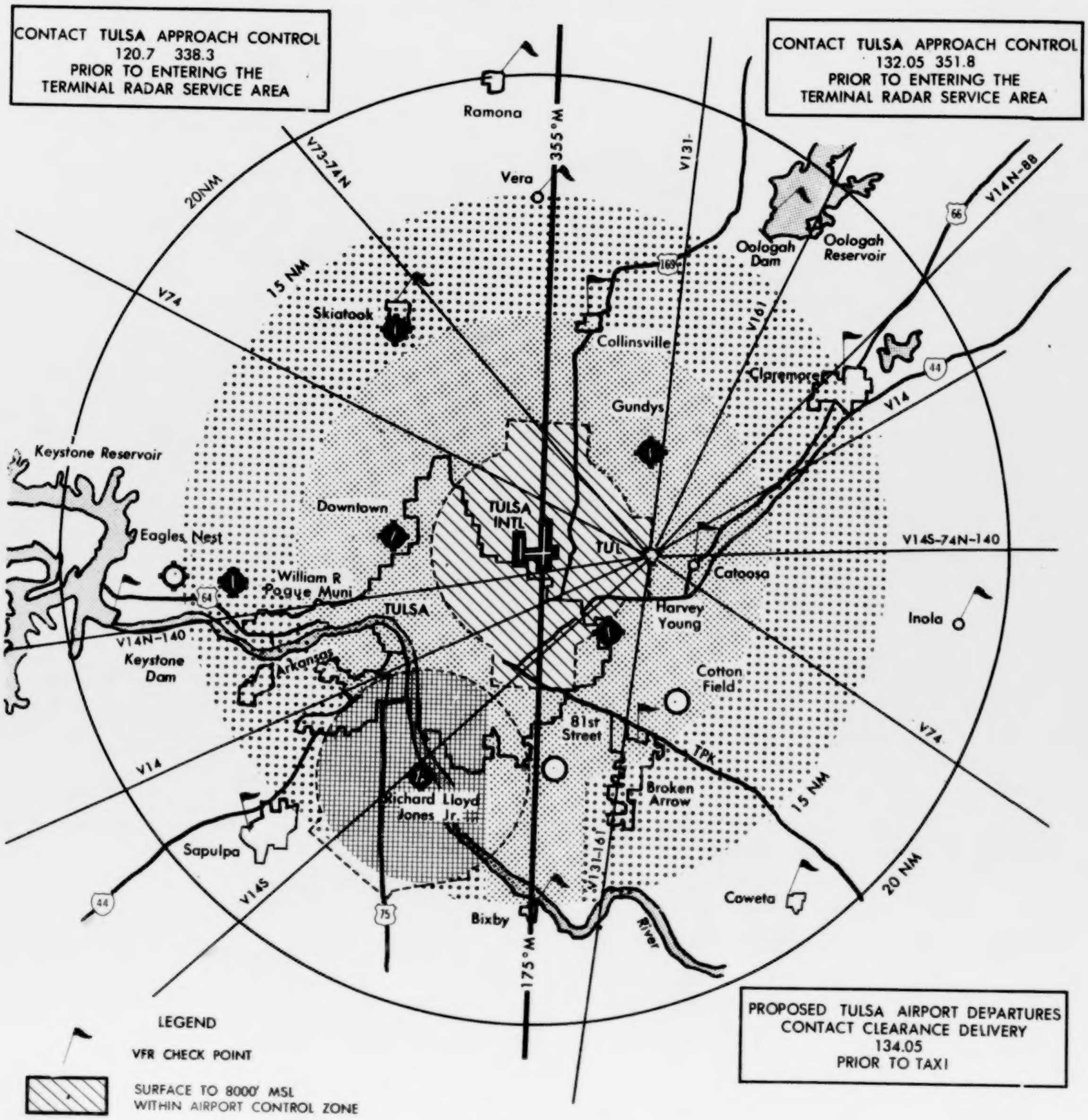
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TULSA, OKLAHOMA, TULSA INTL ARPT
FIELD ELEV. 676′ MSL



CONTACT TULSA APPROACH CONTROL
120.7 338.3
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT TULSA APPROACH CONTROL
132.05 351.8
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

PROPOSED TULSA AIRPORT DEPARTURES
CONTACT CLEARANCE DELIVERY
134.05
PRIOR TO TAXI

Ramona
Vera
355°M
V73-74N
V131
20NM
15 NM
V74
Skiatook
Collinsville
Oologah Dam
Oologah Reservoir
V14N-88
66
169
V161
Claremore
44
V14
Gundys
Keystone Reservoir
Downtown
TULSA INTL
TUL
Eagles Nest
William R Pogue Muni
64
TULSA
V14S-74N-140
Catoosa
Inola
Harvey Young
V14N-140
Keystone Dam
Arkansas
Cotton Field
81st Street
TPK
V74
15 NM
Broken Arrow
V14
Richard Lloyd Jones Jr.
Sapulpa
V131-161
V14S
44
75
Bixby
River
Coweta
20 NM
175°M

LEGEND

VFR CHECK POINT

▨ SURFACE TO 8000′ MSL WITHIN AIRPORT CONTROL ZONE

░ 2500′ MSL TO 8000′ MSL

⁚ 3000′ MSL TO 8000′ MSL

▦ 3500′ MSL TO 8000′ MSL

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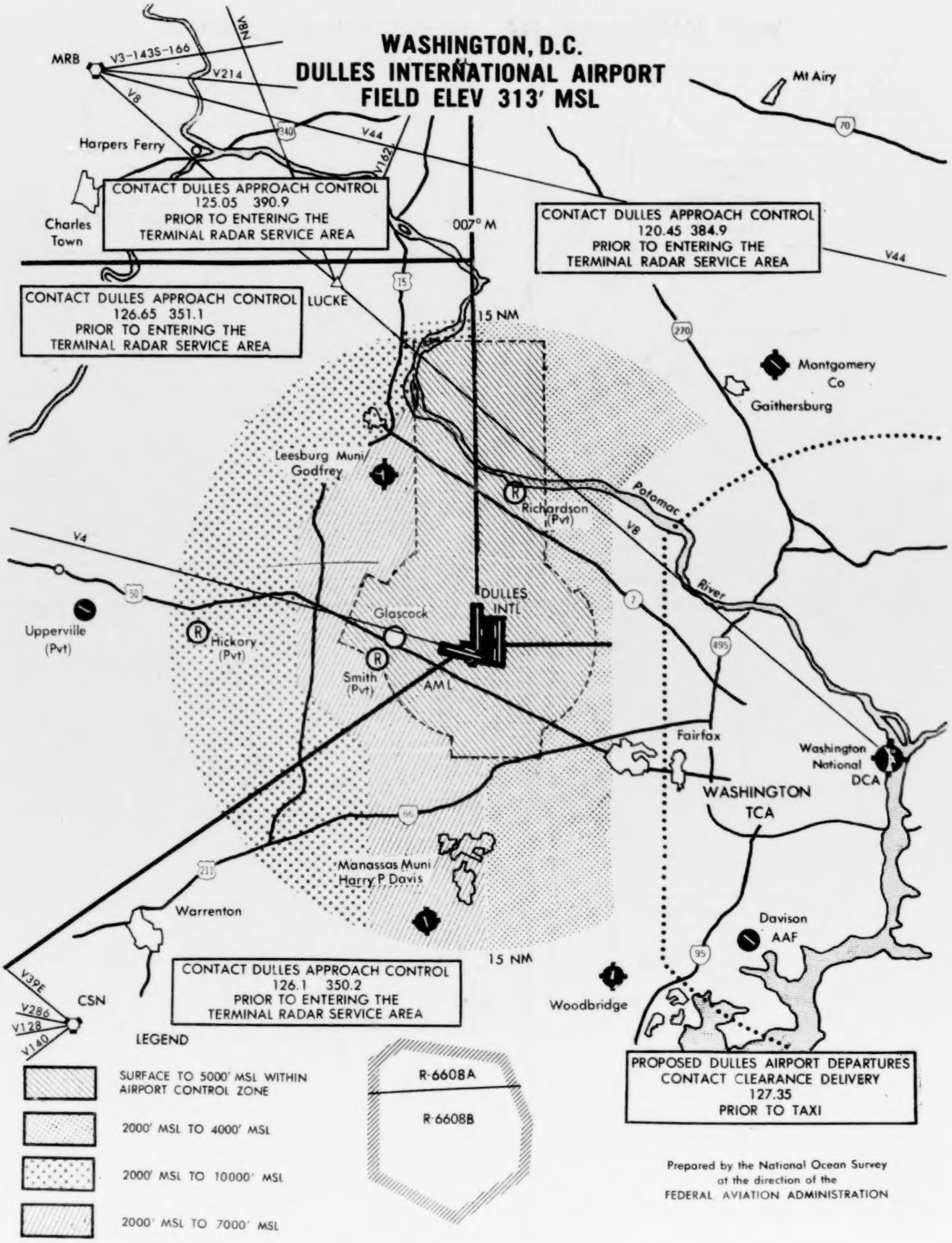
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON, D.C.
DULLES INTERNATIONAL AIRPORT
FIELD ELEV 313′ MSL


MRB
V3-143S-166
V8N
V214
V8
V44
V162
240
Harpers Ferry
Charles Town
Mt Airy
70
CONTACT DULLES APPROACH CONTROL
125.05 390.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA
007° M
CONTACT DULLES APPROACH CONTROL
120.45 384.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA
V44
CONTACT DULLES APPROACH CONTROL
126.65 351.1
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA
LUCKE
15
15 NM
270
Montgomery Co
Gaithersburg
Leesburg Muni/Godfrey
R
Richardson (Pvt)
Potomac
V8
River
V4
50
7
495
Upperville (Pvt)
R
Hickory (Pvt)
Glascock
DULLES INTL
R
Smith (Pvt)
AML
Fairfax
Washington National DCA
WASHINGTON TCA
66
211
Manassas Muni/Harry P Davis
Warrenton
Davison AAF
95
15 NM
V39E
CSN
V286
V128
V140
CONTACT DULLES APPROACH CONTROL
126.1 350.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA
Woodbridge
PROPOSED DULLES AIRPORT DEPARTURES
CONTACT CLEARANCE DELIVERY
127.35
PRIOR TO TAXI
LEGEND
SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
2000′ MSL TO 4000′ MSL
2000′ MSL TO 10000′ MSL
2000′ MSL TO 7000′ MSL
R-6608A
R-6608B

Prepared by the National Ocean Survey
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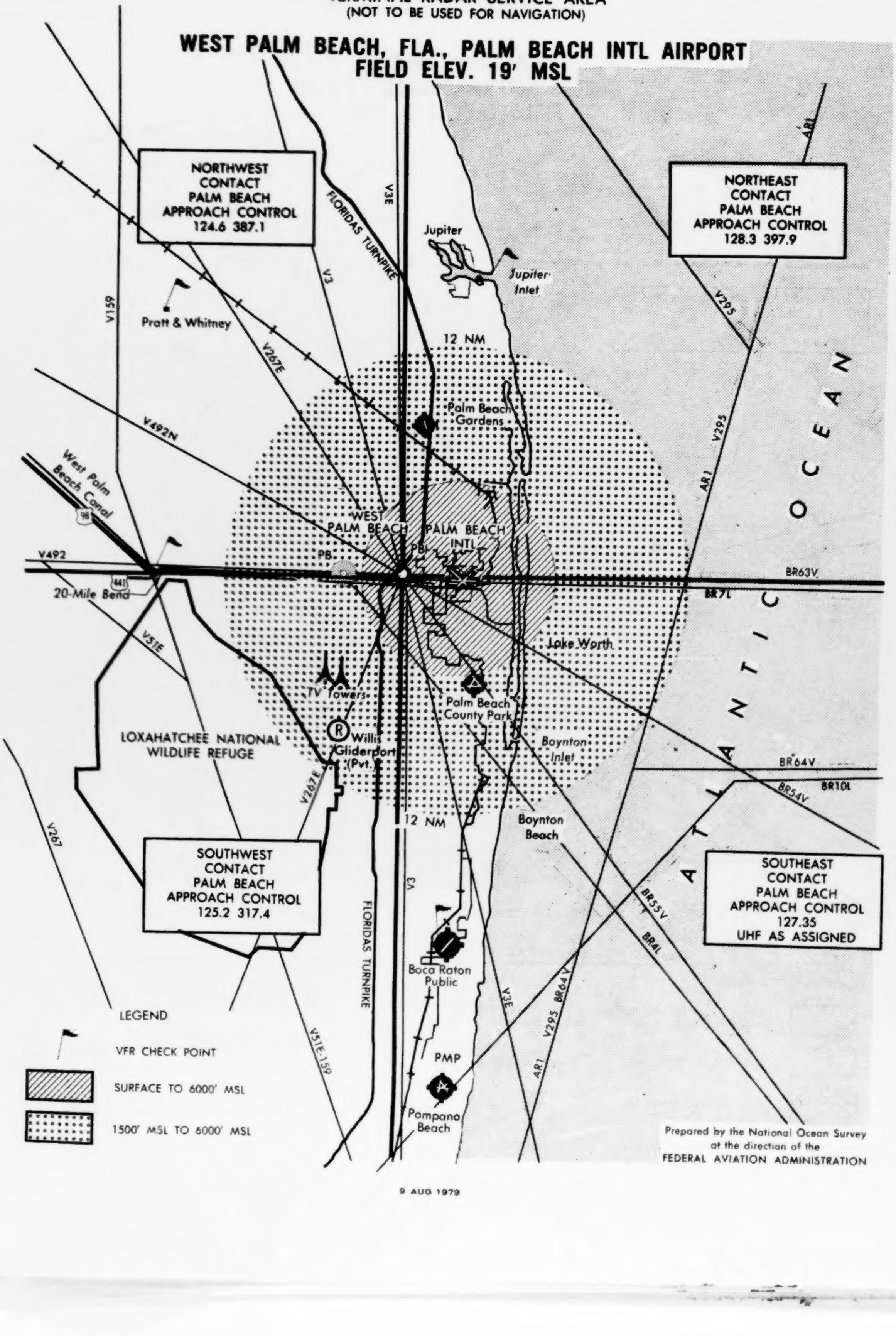
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TRSA-126

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WEST PALM BEACH, FLA., PALM BEACH INTL AIRPORT
FIELD ELEV. 19′ MSL


NORTHWEST
CONTACT
PALM BEACH
APPROACH CONTROL
124.6 387.1
NORTHEAST
CONTACT
PALM BEACH
APPROACH CONTROL
128.3 397.9
SOUTHWEST
CONTACT
PALM BEACH
APPROACH CONTROL
125.2 317.4
SOUTHEAST
CONTACT
PALM BEACH
APPROACH CONTROL
127.35
UHF AS ASSIGNED
AR1
V3E
FLORIDAS TURNPIKE
Jupiter
Jupiter Inlet
V3
V159
Pratt & Whitney
V295
V267E
12 NM
Palm Beach Gardens
V492N
West Palm Beach Canal
98
ATLANTIC OCEAN
WEST PALM BEACH
PALM BEACH INTL
PB
PBI
V492
441
20-Mile Bend
BR63V
BR7L
V51E
Lake Worth
TV Towers
Palm Beach County Park
R
Willis Gliderport (Pvt.)
LOXAHATCHEE NATIONAL WILDLIFE REFUGE
Boynton Inlet
BR64V
BR10L
BR54V
V267
V267E
12 NM
Boynton Beach
BR55V
BR4L
Boca Raton Public
V3E
BR64V
V295
PMP
Pompano Beach
V51E-159
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
1500′ MSL TO 6000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

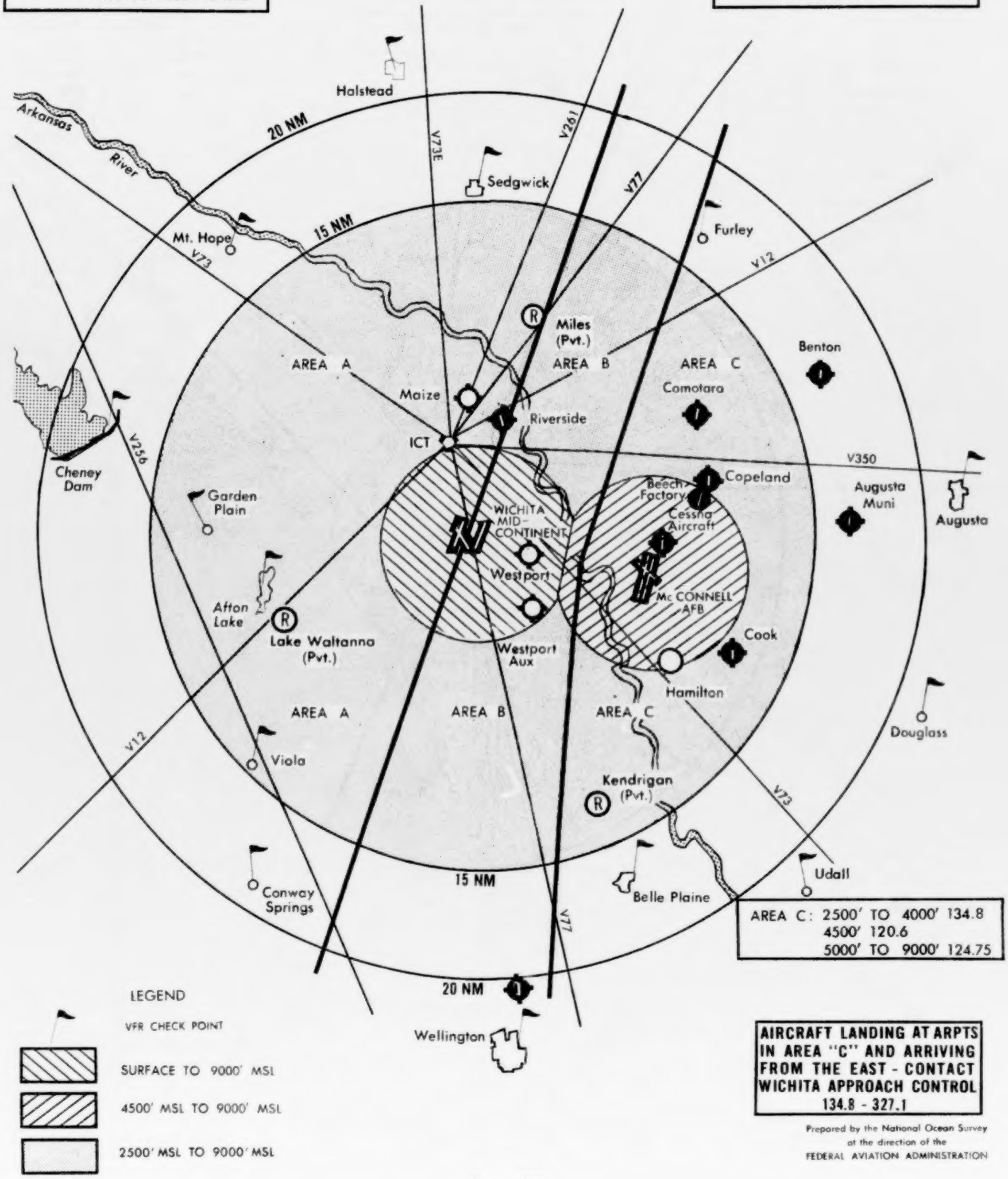
9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS, WICHITA MID-CONTINENT AIRPORT
FIELD ELEV. 1332′ MSL

AREA A: 2500′ TO 4500′ 126.7
5000′ TO 9000′ 124.75

AREA B: 2500′ TO 4500′ 120.6
5000′ TO 9000′ 124.75


Halstead
Arkansas River
20 NM
15 NM
V73E
V261
V77
V12
V73
V256
V350
Sedgwick
Mt. Hope
Furley
Miles (Pvt.)
AREA A
AREA B
AREA C
Benton
Comotara
Maize
Riverside
ICT
Cheney Dam
Garden Plain
Copeland
Beech Factory
Augusta Muni
Augusta
WICHITA MID-CONTINENT
Cessna Aircraft
Westport
Mc CONNELL AFB
Afton Lake
Lake Waltanna (Pvt.)
Westport Aux
Cook
Hamilton
Douglass
Viola
Kendrigan (Pvt.)
Udall
Conway Springs
Belle Plaine
Wellington
LEGEND
VFR CHECK POINT
SURFACE TO 9000′ MSL
4500′ MSL TO 9000′ MSL
2500′ MSL TO 9000′ MSL

AREA C: 2500′ TO 4000′ 134.8
4500′ 120.6
5000′ TO 9000′ 124.75

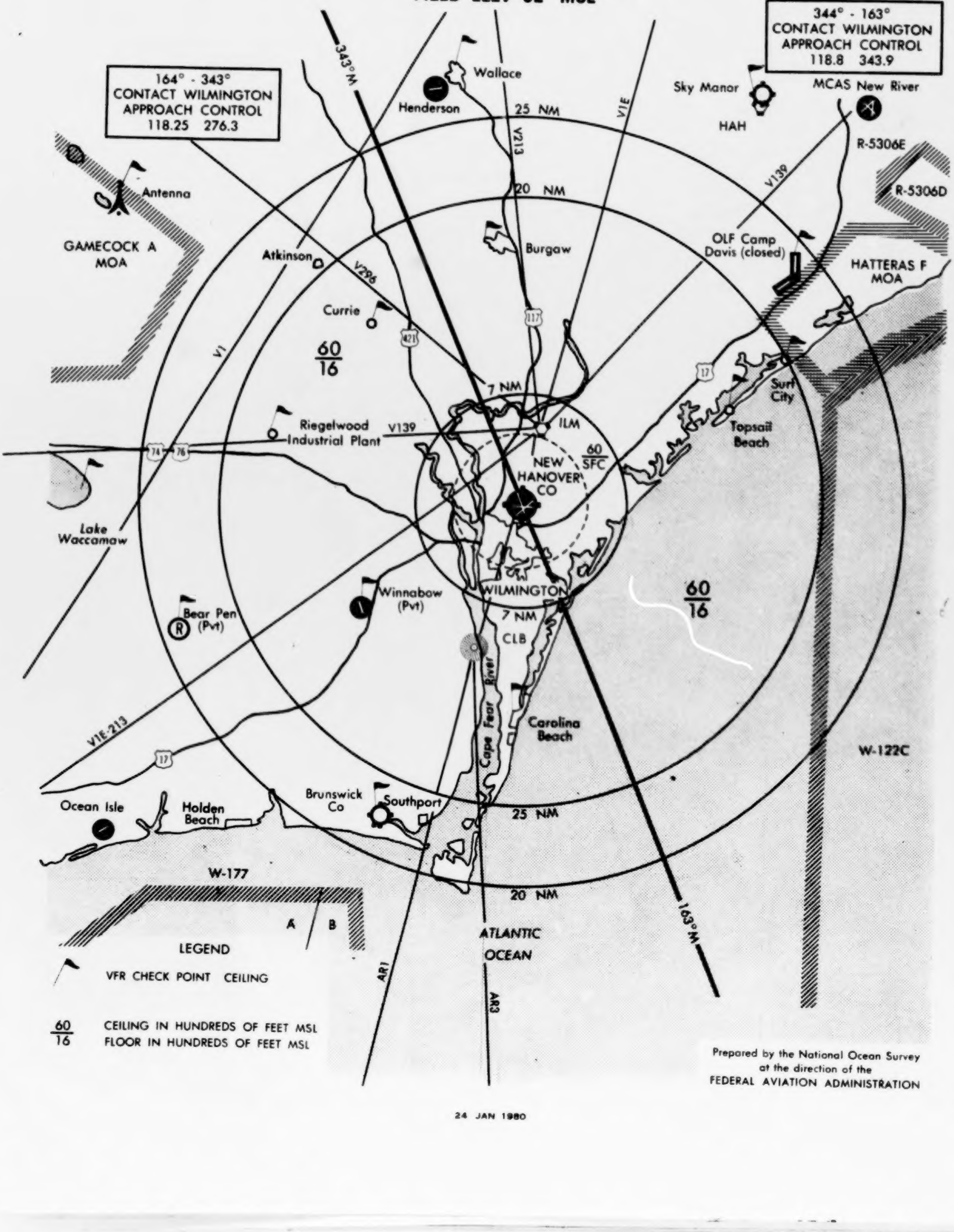
AIRCRAFT LANDING AT ARPTS IN AREA "C" AND ARRIVING FROM THE EAST - CONTACT WICHITA APPROACH CONTROL 134.8 - 327.1

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WILMINGTON, NORTH CAROLINA
NEW HANOVER COUNTY AIRPORT
FIELD ELEV 32' MSL



164° - 343°
CONTACT WILMINGTON
APPROACH CONTROL
118.25 276.3

344° - 163°
CONTACT WILMINGTON
APPROACH CONTROL
118.8 343.9

343°M
Wallace
Henderson
25 NM
V213
V1E
Sky Manor
HAH
MCAS New River
R-5306E
R-5306D
V139
Antenna
20 NM
GAMECOCK A
MOA
Atkinson
V296
Burgaw
OLF Camp
Davis (closed)
HATTERAS F
MOA
Currie
117
421
V1
60
16
17
Surf
City
7 NM
Riegelwood
Industrial Plant
V139
ILM
Topsail
Beach
74
76
60
SFC
NEW
HANOVER
CO
Lake
Waccamaw
60
16
WILMINGTON
Winnabow
(Pvt)
Bear Pen
(Pvt)
R
7 NM
CLB
Cape Fear River
Carolina
Beach
V1E-213
W-122C
17
Brunswick
Co
Southport
Ocean Isle
Holden
Beach
25 NM
W-177
20 NM
163°M
A
B
ATLANTIC
OCEAN
AR1
AR3

LEGEND

VFR CHECK POINT CEILING

$\frac{60}{16}$ CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL

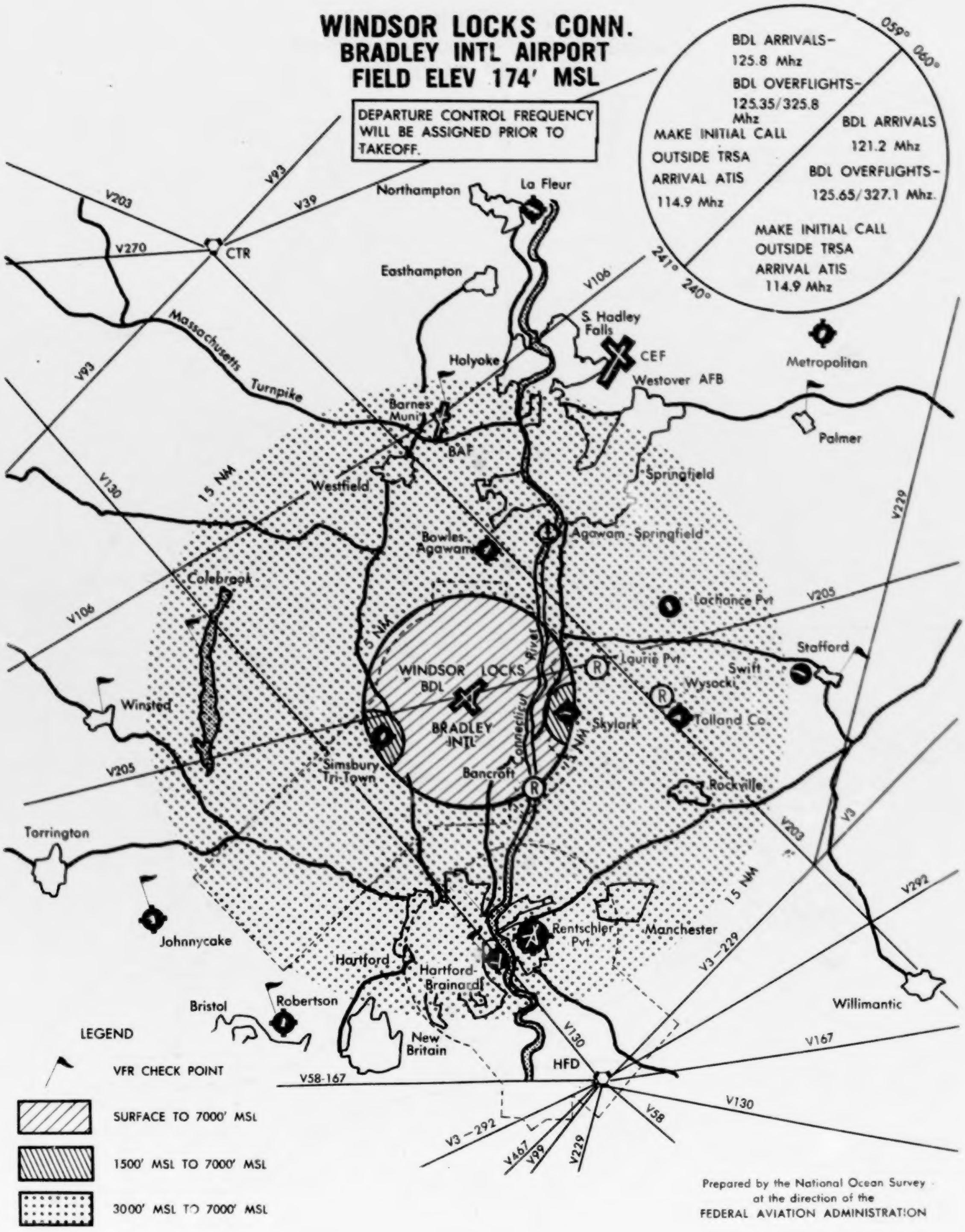
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WINDSOR LOCKS CONN.
BRADLEY INTL AIRPORT
FIELD ELEV 174′ MSL

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKEOFF.

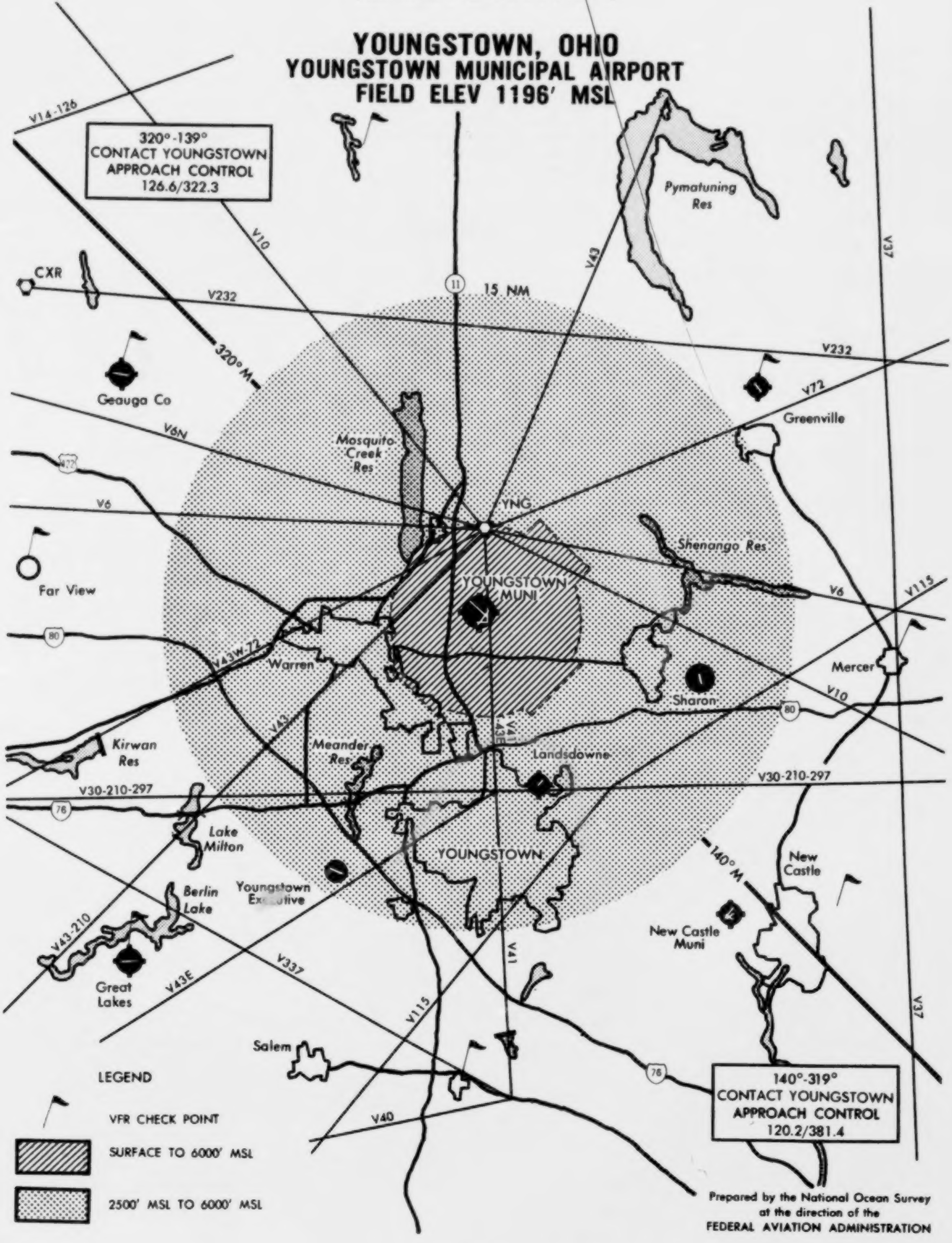

059°
060°
BDL ARRIVALS–
125.8 Mhz
BDL OVERFLIGHTS–
125.35/325.8 Mhz
MAKE INITIAL CALL OUTSIDE TRSA
ARRIVAL ATIS
114.9 Mhz
BDL ARRIVALS
121.2 Mhz
BDL OVERFLIGHTS–
125.65/327.1 Mhz.
MAKE INITIAL CALL
OUTSIDE TRSA
ARRIVAL ATIS
114.9 Mhz
241°
240°
V93
V39
V203
V270
CTR
Northampton
La Fleur
Easthampton
V106
S. Hadley Falls
CEF
Westover AFB
Metropolitan
Holyoke
Massachusetts Turnpike
V93
Barnes Muni
BAF
Palmer
Westfield
Springfield
V130
15 NM
Bowles-Agawam
Agawam–Springfield
V229
Colebrook
Lachance Pvt
V205
V106
5 NM
WINDSOR LOCKS
BDL
Connecticut River
Laurie Pvt.
Stafford
Swift
Wysocki
Winsted
BRADLEY INTL
Skylark
Tolland Co.
V205
Simsbury Tri-Town
Bancroft
11 NM
Rockville
Torrington
V203
V3
15 NM
V292
Rentschler Pvt.
Manchester
Johnnycake
Hartford
Hartford-Brainard
V3–229
Willimantic
Bristol
Robertson
New Britain
V130
V167
HFD
V58-167
V130
V58
V3–292
V467
V99
V229
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
1500′ MSL TO 7000′ MSL
3000′ MSL TO 7000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

YOUNGSTOWN, OHIO
YOUNGSTOWN MUNICIPAL AIRPORT
FIELD ELEV 1196′ MSL


320°-139°
CONTACT YOUNGSTOWN
APPROACH CONTROL
126.6/322.3
V14-126
V10
V43
V37
CXR
V232
11
15 NM
320° M
Geauga Co
V6N
V6
Far View
Pymatuning Res
Mosquito Creek Res
YNG
YOUNGSTOWN MUNI
Greenville
V72
Shenango Res.
V115
Mercer
Sharon
V10
80
Warren
V43W-72
Kirwan Res
Meander Res
V41
V43E
Landsdowne
V30-210-297
76
Lake Milton
Berlin Lake
Youngstown Executive
YOUNGSTOWN
140° M
New Castle
New Castle Muni
V43-210
Great Lakes
V337
V115
Salem
V41
V40
140°-319°
CONTACT YOUNGSTOWN
APPROACH CONTROL
120.2/381.4
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL
2500′ MSL TO 6000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

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.S. AIP SECTIONS:
RAC-9

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JULY 1980
Next
Issue
October
1980

Graphic Notices and Supplemental Data

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9325

SPECIAL NOTICE

Terminal Radar Service Areas (TRSAs) beginning with the April 17, 1980, charting cycle are now being shown on Sectional Aeronautical Charts. The TRSA Graphics are being removed from this publication as they appear on Sectional Charts. Check the Table of Contents for TRSAs now charted. Remove the graphics annotated with † from the April 1980 issue of this publication for your use until July 10 when these TRSAs will be charted.

U.S. DEPARTMENT
OF TRANSPORTATION
Federal
Aviation
Administration

GRAPHIC NOTICES AND SUPPLEMENTAL DATA

This manual is offered for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (telephone: 202-783-3238). All inquiries concerning subscriptions, subscription prices and changes of address must be directed to the Superintendent of Documents.

An annual subscription comprises 4 issuances of this publication, dated January, April, July and October of each year. The Federal Aviation Administration does not maintain or publish price schedules for this publication since, price changes can, and do, occur between publication dates. A statement of price in this publication will cause the publication to be withheld from distribution should a price increase occur immediately prior to the publication effective date.

Corrections, suggested changes or comments concerning this publication should be directed to the Federal Aviation Administration, National Flight Data Center, 800 Independence Ave. SW, Washington, D.C. 20591.

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Washington, D.C. 20402

NOTICE TO THE EDITOR

The following comments/corrections are submitted concerning the information contained in the paragraph titled ____________________________________ on page _____________ of the Graphics Notices and Supplemental Data, dated _______________________ .

____
Name Title (if appropriate) Address

____________________________ ____________________________
Home phone Business phone

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Federal Aviation Administration
National Flight Data Center (AAT-430)
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Washington, D.C. 20591

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______Request for subscription to the U.S. Aeronautical Information publication (US AIP) (including remittance.)

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Signature

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Washington, D.C. 20402

FOREWORD

Graphics Notices and Supplemental Data is a publication containing aeronautical data, area notices or navigational route information which is supplemental to other operational aeronautical publications and charts. Data contained in this publication is, generally, not subject to frequent change. Data of a more critical nature, such as the tabulation of North American Routes (NAR) or the graphic area notices (i.e., Terminal Radar Service Areas [TRSA] and Terminal Control Areas [TCA]), which may require revision prior to the next scheduled printing of this publication, will be revised in the publication *Notices to Airmen (Class II)*. These revisions will appear only once, so users are advised to tear them out of the *Notices to Airmen* and insert them in this publication until the next issue. *Graphic Notices and Supplemental Data* is a quarterly publication and is available through subscription from the Superintendent of Documents.

Graphic Notices and Supplemental Data also serves as the section RAC–9 in the *United States Aeronautical Information Publication.* The US AIP, issued in one volume, is the basic aeronautical information document published for international use and contains information of a lasting character, essential to international air navigation. It is available in English only and is maintained on a current basis by quarterly amendment service consisting of a checklist, reprinted pages and, in the case of minor amendments, manuscript corrections. This publication is a loose leaf publication made to fit a standard three ring binder. Subscriptions are available through the Superintendent of Documents. A subscription will consist of the basic issue (dated January, 1979) and seven amendments, as they are published. The next basic issue will be in January of 1981.

This manual is complementary to other publications which are available upon separate subscription. These publications are:

Airmen's Information Manual (Basic Flight Information and ATC Procedures)—A publication containing the basic fundamentals required in order to fly in the U.S. NAS. It also contains items of interest to pilots concerning health and medical facts, factors affecting flight safety, a pilot/controller glossary of terms used in the Air Traffic Control System, and information on safety, accident and hazard reporting.

Notices to Airmen (Class-II)—A publication containing current Notices to Airmen (NOTAMs) which are considered essential to the safety of flight as well as supplemental data affecting the other operational publications listed here. It also includes current FDC NOTAMs, which are regulatory in nature, issued to establish restrictions to flight or amend charts or published Instrument Approach Procedures. This publication is issued every 14 days and is available through subscription from the Superintendent of Documents.

Airport/Facility Directory, Alaska Supplement, Pacific Supplement—These publications contain information on airports, communications, navigational aids, instrument landing systems, VOR receiver check points, preferred routes, FSS/Weather Service telephone numbers, Air Route Traffic Control Center (ARTCC) frequencies, part-time control zones, and various other pertinent, special notices essential to air navigation. These publications are available upon subscription from the National Ocean Survey (NOS), Distribution Division (C–44), Riverdale, Maryland 20840.

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration is responsible for insuring the safe and efficient use of the Nation's airspace, by military as well as civil aviation, for fostering civil aeronautics and air commerce in the United States and abroad, and for supporting the requirements of national defense.

The activities required to carry out these responsibilities include: safety regulation; airspace management and the establishment, operation, and maintenance of a civil-military common system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the agency under one particular situation or another may or may not furnish information does not serve as a precedent of the agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Administration to furnish information only when, in the opinion of the agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

TABLE OF CONTENTS

Page

Area Advisories ADZY-1

Area Navigation (RNAV) Routes RNAV-1

Civil Flight Test Areas CIV-1

North Atlantic Minimum Navigation Requirements NAT-1

North Atlantic Standardized Air/Ground Messages NAT-4

North American Routes for North Atlantic Traffic (NAR) NAT-5

Terminal Area Graphics (listed alphabetically) TERM-1

Terminal Radar Service Area Graphics (TRSA) (listed alphabetically) TRSA-1

AREA ADVISORIES

THE FOLLOWING ADVISORIES CONTAIN AERONAUTICAL INFORMATION THAT DOES NOT CONCERN A SPECIFIC AIRPORT OR NAVAID, OR FAILS, FOR SOME OTHER REASON, TO MEET THE CRITERIA FOR INCLUSION INTO OTHER PERMANENT BASE LINE PUBLICATIONS SUCH AS THE *AIRPORT/FACILITY DIRECTORY*. SUCH INFORMATION WILL BE AUTOMATICALLY TRANSFERRED TO THIS PUBLICATION FROM THE *NOTICES TO AIRMEN* (CLASS II) PUBLICATION WHEN THE ORIGINATOR INDICATES THAT THE ADVISORY IS EITHER PERMANENT OR EXPECTED TO REMAIN CURRENT LONG ENOUGH TO WARRANT PUBLICATION HERE. THESE ADVISORIES ARE GROUPED UNDER STATE HEADINGS, AND, WHERE APPROPRIATE, UNDER CITY OR GEOGRAPHIC LOCATIONS. ADVISORIES THAT PERTAIN TO MORE THAN ONE STATE OR REQUIRE A FULL PRINTED PAGE WILL BE INCLUDED UNDER THE *GENERAL* HEADING. THE NUMBER IN PARENTHESIS FOLLOWING EACH ENTRY IS THE MONTH AND YEAR THAT THE ADVISORY WAS ISSUED.

GENERAL

SPECIAL NOTICE—UNICOM:

(A) At the present time there are three UNICOM frequencies, 122.7, 122.8, and 123.0 available for assignment to uncontrolled airports. In the past, no attempt has been made to assign these frequencies in such a way as to reduce frequency congestion between adjacent airports. To reduce frequency congestion, a frequency assignment plan has been developed for 15 areas of the country which have a high concentration of uncontrolled airports. Specifically, these areas are: New York/New Jersey, Washingtion, D.C./Maryland/Virginia, Atlanta, Chicago/Milwaukee, Cleveland, Los Angeles, Denver, Cincinnati/Dayton/Columbus, Seattle, Detroit/Toledo, Indianapolis, Houston, Dallas/Fort Worth, Pittsburgh and Boston. The FCC has requested a significant number of UNICOM operators located in the above areas to change frequencies in accordance with the plan.

(B) Over the next 6 to 12 months there will be numerous UNICOM frequency changes. During this transition period directory/supplements or appropriate charts may not accurately reflect UNICOM frequency assignments at uncontrolled airports. Pilots destined for one of the areas noted above are urged to verify the UNICOM frequency in use during preflight briefings or with the FSS associated with the airport destination. (3/80)

ARIZONA

THE GRAND CANYON CAVERNS AREA: Quarry located 3 miles west-southwest of Grand Canyon Caverns Landing Strip. Aircraft are cautioned to avoid this area during daylight hours, if necessary to fly over the area maintain a minimum altitude of 4000 feet AGL due to possible damage from flying rocks or turbulence caused by blasting. (3/78)

GRAND CANYON AND PETRIFIED FOREST NATIONAL PARKS: All pilots are requested to avoid flying below the canyon rim and to maintain a distance 1500 feet above and horizontally from all scenic overlooks, parks, and trails. (10/74)

CALIFORNIA

SALINAS RIVER AND OCEAN SHORELINE: Avoid flying below 1000 feet over a 400 acre Wildlife Refuge along the south side of the mouth of the Salinas River and ocean shoreline eastward. (1/76)

CONNECTICUT

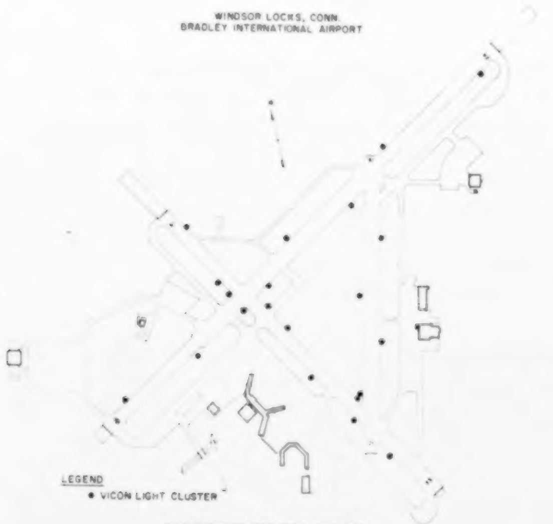
BRADLEY INTERNATIONAL AIRPORT: Visual confirmation of voice takeoff clearance (VICON) test. During the period between August 1979 through March 1980, an operational evaluation will be conducted at the Bradley International Airport, of an experimental light system which is intended to enhance safety by providing a second stimulus (visual) which is used to "CONFIRM" the voice takeoff clearance. The non-standard light system is installed at all departure points on all runways of the Bradley International Airport.

The system is to "CONFIRM" the voice takeoff clearance by a pulsating green light which will be turned on or activated by the control tower operator at the time takeoff clearance is issued. The lights are located so that they will always be found in the front left quarter, as viewed by the pilot, from the aircraft when in takeoff position on the runway. The lights, a cluster of three lamps, will be visible from the runup pad, when near the runway, and when lined up on the active runway.

The VICON confirmation lights are turned off automatically by electronic devices. At all intersections and the ends of runway 01 and 19, the electronic device will be a timer. The timing may be varied during the testing period. At departure points where the timer devices are utilized, the lights may turn off prior to the start of the takeoff roll or prior to passing the VICON light. The light going out, *does not* indicate your takeoff clearance has been cancelled, only the voice instruction from the control tower will cancel the takeoff clearance. (9/79)

VISUAL CONFIRMATION OF VOICE TAKEOFF CLEARANCE

VICON



DISTRICT OF COLUMBIA

WASHINGTON NATIONAL AIRPORT: Turbojet policy except under emergency conditions and subject to observance of noise abatement procedures, only those turbojet aircraft meeting the following criteria can be accommodated: A. Approved types of turbojet aircraft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operation, (2) Air carrier (including supplemental air carriers) and commercial operator training charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Saulnier 760 (4) Jet Commander (Aero Commander) (5) Learjet (6) Hawker Siddley DH-125 (7) Hansa Jet HFB 320 (8) Fan Jet Falcon (9) Caravelle (10) DC-9 series 10, 30 and 50 (11) BAC-111 (12) Boeing 727 series thru 200 approved under controlled conditions, (13) Boeing 737 series 100 and 200 (14) Gulfstream II (15) Cessna Model 500 Citation C. Turbojet aircraft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet aircraft described in paragraph B (9) through (13) may not be operated into or out of airport on a flight segment of more than 650 statute miles except for non stop flights of less than 1000 miles operating to or from the following cities: Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla. Runway 15 available all jet takeoffs. No runup in position prior to takeoff. Rolling takeoffs only. In the interest of noise abatement, all non-scheduled turbojet operators are requested not to land at or takeoff from Washington National Airport 2300-0700 local time. (10/74)

WASHINGTON ARTCC: Enroute radar service, VFR advisory service and merging target service below 10000 feet MSL available only to transponder equipped aircraft in Roanoke, Lynchburg, Charlottesville, Danville and Elkins. (2/78)

WASHINGTON NATIONAL AIRPORT: Lead-in light system located at upstream side center of Memorial Bridge angled to intercept altitude of 900 feet MSL over Key Bridge. (8/78)

WASHINGTON NATIONAL ATCT: LOCAL FLOW TRAFFIC MANAGEMENT—TURBOJET ARRIVALS: Washington National Tower, in conjunction with the Washington ARTCC, has implemented a metering plan designed to minimize low altitude holding, reduce radar vectors at speeds requiring the extension of flaps and to provide for an orderly flow of traffic to the final approach course. Dependent upon the airport acceptance rate, in-trail spacing between successive arrivals may necessitate using speed adjustments prior to reaching the Washington Terminal Area. Descent, under most conditions, will be from arrival fixes established 30 to 36 miles from the runway end. Advance notice as to where to expect descent and when to expect base leg should be given. It is imperative that pilots control their descent at a uniform rate to preclude intermediate altitude restrictions. (Procedures are based on a near idle thrust, 300 feet per mile descent in still air conditions.) (11/78)

FLORIDA

MIAMI: Balloon flights will be made to 1500 feet AGL sunrise-sunset in an area 5 miles north of the Miami VORTAC, about 6 miles south/southwest of the intersection of US highway and State highway 84. (3/78)

AREA ADVISORIES

GEORGIA

ATLANTA TOWER SPECIAL NOTICE: Low altitude airway structure in proximity of the William B. Hartsfield Atlanta International Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid Heavy Concentration of high performance and wide-bodied aircraft, pilots should file airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local time. (6/78)

ILLINOIS

CHICAGO, O'HARE INTL AIRPORT: Surface wind information provided by O'Hare Tower directly to landing aircraft, for all runways except 18–36, will be derived from wind sensor equipment near each runway threshold rather than from the centerfield wind sensor equipment; except that the center field source will be used during outages of threshold sensors. Surface wind information in weather reports, ATIS broadcasts and given directly to departing aircraft will continue to be from the centerfield source. (9/79)

CHICAGO/WEST CHICAGO, DUPAGE COUNTY AIRPORT: Traffic advisory, high volume of concentrated VFR traffic west of airport; aircraft approaching this area should be alert for north-south VFR traffic circumnavigating O'Hare TCA and not in radio contact with Dupage tower or Chicago ARTCC. (9/78)

KENTUCKY

COVINGTON GREATER CINCINNATI AIRPORT: Runway Alignment Indicator System Experimental (RAISE) located extended center line runway 18, 8630 feet north of threshold. System appears as an inverted T with 5 light stations forming the cross of the T, and 2 additional light stations forming the leg of the T. All lights are red and system operates in steady burning mode. Minimum crossing height 1300 feet MSL for visual approaches from north. ILS Glide Path altitude is 1300 feet MSL over RAISE. (10/4)

MAINE

MOSCOW/CARATUNK, SOMERSET COUNTY: The U.S. Air Force will be operating an experimental radar system transmitter located at latitude 45°10′25″N 69°51′40″ West on an intermittent basis (approximately 40 hours per week) until June 1981. The transmitter will be operating on FM/CW frequencies between 6.75–21.85 mhz. The transmitted energy will create an area hazardous to aircraft carrying electro-explosive devices. The area will also be hazardous to airborne high frequency radios. All aircraft are cautioned to avoid the area within 2 nautical miles radius of the antenna site below an altitude of 6500 feet MSL. Aircraft, in particular, should avoid penetrating the airspace beginning at the antenna site and extending 1 mile along the boresite of 46.5 degrees true at an altitude of 5000 feet and below within ½ mile of either side of the boresite. (1/80)

MASSACHUSETTS

SPECIAL NOTICE: Weather warning signs installed airport ramp areas at number Cape Cod and bordering Island locations. Signs function with associated flashing lights during periods where IFR or other hazardous weather is current or forecast. Sign and light system operations at Chatham, Martha's Vineyard, Hyannis, New Bedford, Plymouth, and Nantucket during hours airport attended or tower open. (9/79)

BOURNE: Aircraft operating below 2000 ft and within 3 miles of Pave Paws radar site located in Restricted Area 4101 may experience momentary erratic operation of cockpit instruments or navigational equipment. Pilots are encouraged to submit reports of such occurrences to nearest FAA Air Traffic Facility. (5/79)

BOSTON: The low altitude route structure in the proximity of Boston is aligned so as to provide expeditious bypass routes for traffic overflying Boston. With the exception of aircraft operating between Maine and Cape Cod, aircraft requesting IFR flight between the hours of 0800–2100 local time, at and below altitudes 14,000 feet MSL withing 40 NM of Boston, can except bypass routings to be assigned. Maine and Cape Cod traffic may use the routing Hyannis VORTAC (HYA) 353 Radial TONNI Intersection V139 Kennebunk VORTAC (ENE), or vice-versa, as appropriate. In order for other aircraft to avoid the concentration of high performance aircraft arriving and departing Boston between the hours 0800–2100 local, pilots should file for airways beyond 40 NM from Boston VORTAC. (3/80)

MINNESOTA

HIBBING: Extensive open pit mine blasting operations being conducted from 12 nautical miles southwest to 48 northeast of Hibbing. Possible debris to 4000 feet. Contact Hibbing FSS for blasting schedule. (5/76)

NEW JERSEY

NEW YORK ARTCC: The New York Air Route Traffic Control Center, in concert with the Philadelphia, Atlantic City and McGuire AFB Approach Control Facilities, has developed restricted airspace procedures in support of an intensive RCA/US Navy test program. The area concerned is east of a line from SBY (Salsbury VOR) to PNE (North Philadelphia) VOR and south of line from the PNE VOR to the MANTA intersection on V139 and primarily in the vicinity of ACY (Atlantic City, NJ), McGuire AFB, NAS Lakehurst, and Philadelphia. The Program will continue for an extended period. Discrete times and altitudes will be used in the flying test profiles to have as little impact as possible on normal traffic flow. Appropriate daily NOTAMs will be issued concerning airspace restrictions. Some slight delays to IFR traffic may be encountered. New York Center Flow Control Printer Information will also be issued with restrictions if necessary, however, delays if any will be kept to the minimum. (8/78)

NEW YORK

NIAGARA FALLS: Recommended VFR Flight Procedures in the "Niagara Scenic Falls" Area. (A) Due to the high concentration of Sightseeing Flights in the Niagara Falls Area and in the interest of Flight safety, the following procedures are recommended:

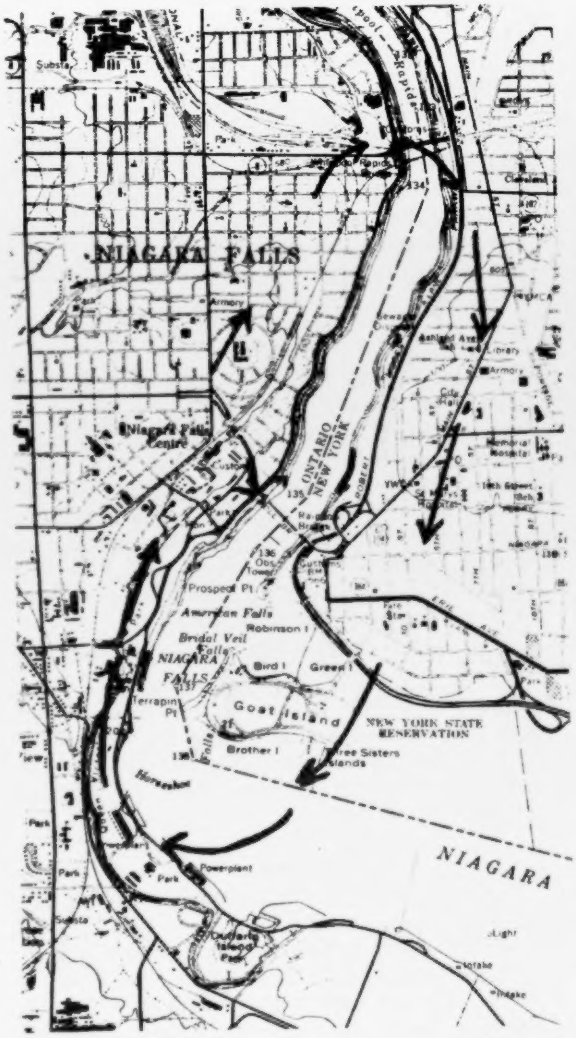
(1) A right hand circuit pattern with north end right turn area, south of the *railroad* bridge across the Niagara Gorge—and southern right turn area near the town of Chippewa, (south shore of Niagara River).

(2) On joining the right hand pattern, pilots should broadcast their intentions on frequency 122.9 MHz, giving their cruising altitude and point of entry: i.e., northbound or southbound, and monitor the frequency while in the pattern.

(3) It is recommended that (a) helicopters operate in the pattern between 2000 and 2200 ft. AGL. (b) fixed wing aircraft operate in the pattern between 2500 and 3000 ft. AGL. (c) turbo prop/jet and aircraft with cruise speeds of 150 kts.+, operate in this pattern above 3200 ft. AGL.

Although these procedures are intended to segregate traffic, VFR rules of "See and Be Seen" and good airmanship practices will prevail.

(B) IMPORTANT NOTE: Obtain current altimeter setting prior to joining the pattern through either Niagara Falls tower frequency, or St. Catharines tower frequency. *All Pilots* are cautioned that the areas on both sides of the Niagara Gorge between "The Whirlpool" and "Horseshoe Falls" are extremely noise sensitive. Maintain at least 2200 ft. AGL over this area prior to joining the pattern. (3/80)


Rapids
NIAGARA FALLS
Armory
Library
Armory
Niagara Falls Centre
ONTARIO
NEW YORK
Memorial Hospital
Prospect Pt
American Falls
Robinson I
Bridal Veil Falls
NIAGARA FALLS
Bird I
Green I
Terrapin Pt
Goat Island
NEW YORK STATE RESERVATION
Brother I
Three Sisters Islands
Horseshoe
Park
Powerplant
NIAGARA
Light

The provision of enroute primary radar service is not available in the Boston ARTCC Watertown NY area at 12,000 feet and below, Rockdale/Utica NY areas at 11,000 feet and below, Delancey NY area at 7,000 feet and below, and in the Syracuse/Georgetown NY areas at all altitudes.

NEW MEXICO

FARMINGTON: Blasting daily 0900-1700 between the Farmington VOR 120 degree to the 330 degree radials beyond 10 DME miles. Caution should be exercised if operating below 500 feet AGL near drag lines or drilling rigs. (6/78)

AREA ADVISORIES

OREGON

BIRD HAZARDS: Heavy concentration of migratory and wintering flocks of large waterfowl throughout central Oregon from the Washington to California borders annually November to May. Caution advised at all airports or while transiting area.

TEXAS

SAN ANTONIO: April to October large concentrations of bats are observed in the vicinity of Bracken Cave located 5.5 miles east of SAT VORTAC. Most activity is observed near sunset and sunrise at altitudes up to 10000 feet.

UTAH

BINGHAM CANYON: Unmarked cables and pole lines suspended across canyon and in vicinity of the open pit mine. (10/74)

FLAMING GORGE DAM SITE: Cables and power lines suspended from 2 towers on west side to one tower on east side of canyon across Green River approximately 100 feet higher than canyon rim. (10/74)

VIRGINIA

SHENANDOAH VALLEY AIRPORT—AUTOMATIC WEATHER SYSTEM OPERATIONAL: (A) The first automatic weather observing and reporting system to meet FAA performance and installation requirements is now operational at Shenandoah Valley Airport (SHD), Staunton, Virginia.

(B) The "Weather-Check V," designed and produced by Artais Incorporated of Columbus, Ohio, received FAA system approval in August and installation approval at SHD in January. The system consists of sensors which constantly measure temperature, dewpoint, wind and pressure. These elements, as well as manually entered NOTAM data, are processed into an automatic voice which is transmitted every minute over the Staut NDB, "SH" on 375 khz (and also available by telephone, area code 703, 234-9345). The system thus continually reports real-time weather data directly to the pilot.

(C) The following is an example of the voice message: "Shenandoah Valley Airport, time one two three four Greenwich, temperature five two, dewpoint four seven, wind two six zero at one five gusting two four, altimeter two nine nine seven, NOTAMs missing." If any data is either unavailable or invalid (as determined by the machine's internal verification processes), it is reported as "missing."

(D) "Weather-Check V" information received over the SH NDB may be used for VFR and IFR operations. As indicated on the instrument approach charts, the altimeter setting may be used for the conduct of actual IFR approaches to the airport. (Should the altimeter setting be not received and/or reported "missing," the designated remote altimeter source and associated higher approach minimums would apply.)

(E) Throughout the 1980's additional Weather-Check sites and additional weather elements (such as visibility) are expected. (3/80)

WASHINGTON

ARLINGTON AIRPORT: Unmarked/unlighted horizontal and vertical cables blocking canyon from 3217 feet MSL to canyon floor located 10 nautical miles east northeast airport. Six structures on each side of canyon are marked and lighted. (9/77)

COLUMBIA RIVER BASIN: Bird Hazard—Heavy concentration of migratory and wintering flocks of large waterfowl throughout the Columbia River Basin from the Canadian to Oregon borders annually November to May. Caution advised to all airports or while transiting area.

HANFORD: Numerous unmarked/unlighted tall structures located within 12 nautical miles of radius of Hanford, Washington. Pilots are advised to maintain at least 1000 feet above surface in this area. (11/77)

WISHRAM: Unmarked powerlines from north shore of Columbia River to Millers Island 2 nautical miles east of Wishram Washington, 250 feet above the water 712 feet MSL. (2/78)

WYOMING

SHERIDAN: Coal mine blasting surface to 1000 feet AGL 27 nautical miles northeast of Sheridan. Blasting will continue indefinitely. (10/74)

YELLOWSTONE NATIONAL PARKS: Due to increasing low level flights over national parks, pilots are requested to maintain 2000 feet AGL when transiting Yellowstone National Parks unless aircraft capability is exceeded. (9/72)

AREA NAVIGATION ROUTES (RNAV)

Area navigation systems permit navigation via a selected course to a predefined point without having to fly directly toward or away from a navigational aid. Typical of such systems are doppler radar, inertial and course line computers.

Introduction of the area navigation capability into the National Airspace System provides a means of overcoming many of the constraints of the VOR system. Elimination of the requirement to fly along radials that lead directly to or from the ground station makes it possible to design routes and procedures that better facilitate the movement of traffic.

Guidelines for the implementation of area navigation within the National Airspace System were issued in the form of Advisory Circular 90-45A on 2 February 1975. Advisory Circular 90-45A contains standards and methods for obtaining approval for use of area navigation equipment in IFR operations. It also contains air traffic control procedures applicable to approved area navigation equipment.

Since the VOR system forms the basis for the existing airway and air traffic control systems, area navigation route definitions and air traffic control clearances will be in terms of, and referenced to, VOR ground stations. However, latitude/longitude descriptions of fixes forming area navigation routes are provided to facilitate the use of airborne systems that are not dependent on VOR input signals.

Area navigation routes are numbered in a manner similar to VOR airways and jet routes. The suffix "R" identifies the route as an area navigation route. When filing an IFR flight plan containing an area navigation route, the route number may be filed in the same manner as a VOR airway number. The filed route should clearly define the intended route during transition from the VOR structure to the area navigation structure.

Area navigation route numbering will be as follows:

(1) Series 700 (low) and 800, 900 (high) routes—Routes designated in Parts 71 and 75. Routes expected to be in frequent use by more than one user and published on appropriate U.S. Government Charts. MEAs will be published in FAR 95.

(2) Series 500 (low) and 600 (high) routes—Routes published in the Graphic Notices and Supplemental Data. Routes planned for more than one user but their expected usage does not justify Government charting. MEA's when not published in FAR 95 and the Graphic Notices and Supplemental Data, will be provided by ATC.

(3) Series 300 (low) and 400 (high) routes—Routes established primarily for one user. Not carried on Government charts. MEAs will be periodically published in the listing of non-95 routes.

The routes contained herein are those of the 500 and 600 Series.

Each area navigation route listed is based on a centerline which extends between fixes, described by reference to VOR/DME, called waypoints, specified for that route. Each waypoint is listed by geographical name, followed by the VOR/DME fix description in the format: VOR STATION RADIAL/DME MILEAGE (example POM 033/010). Also included are the track to be flown (Mag track), the VOR changeover point (COP, with "MP" indicating Midpoint) the distance (DIST) between waypoints, and the latitude/longitude description.

HIGH ALTITUDE AREA NAVIGATION ROUTE (UNCHARTED)

J620R

Hemlo (Pacific Ocean) to Dayah, Oregon

WAYPOINT NAME	DESCRIPTION VOR/DME	GEOGRAPHICAL COORDINATES
Hemlo	ONP 216.0/137.0	43°18'08",126°40'49"
MAG TRACK: 047.4/229.8		DIST: 158
COP: NOT REQUIRED		MEA: 18000
		MAA: 45000
Eugene	ONP 105.8/45.2	44°07'16",123°13'18"
MAG TRACK: 056.2/237.7		DIST: 95
MAG TRACK: 059.1/240.2		DIST: 70
COP: 95 E EUGENE		MEA: 18000
		MAA: 45000
Dayah	PDT 178.3/69.4	44°33'58",119°26'45"

SPECIAL OPERATIONS

CIVIL FLIGHT TEST AREAS

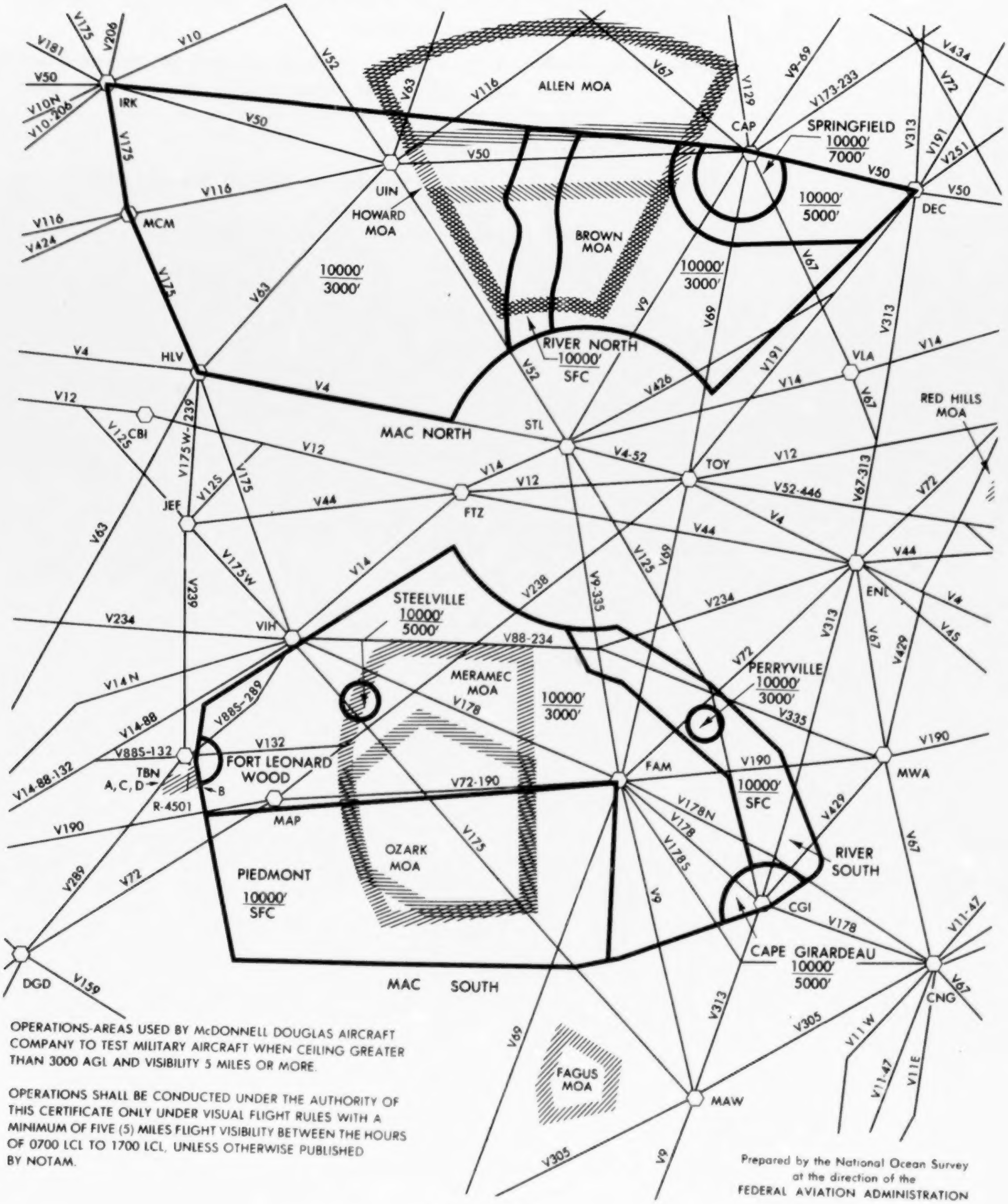
The graphics on the following pages depict areas that have been designated as flight test areas for civil aircraft manufacturers. These flight tests shall be conducted under the following conditions.

Operations—Conducted by military jet type aircraft at indicated airspeeds above 250 knots when ceiling greater than 3,000 feet AGL and visibility five (5) miles or more.

Altitudes—10,000 feet to surface.

Hours of Operations—Check graphics or Flight Service Station for hours of operation.

MCDONNELL AIRCRAFT COMPANY
MCAIR LOW ALTITUDE FLYING AREAS


ALLEN MOA
HOWARD MOA
BROWN MOA
10000′ / 3000′
SPRINGFIELD 10000′ / 7000′
10000′ / 5000′
10000′ / 3000′
RIVER NORTH 10000′ / SFC
MAC NORTH
RED HILLS MOA
STEELVILLE 10000′ / 5000′
MERAMEC MOA
10000′ / 3000′
PERRYVILLE 10000′ / 3000′
10000′ / SFC
FORT LEONARD WOOD
TBN
A, C, D
B
R-4501
OZARK MOA
PIEDMONT 10000′ / SFC
RIVER SOUTH
CAPE GIRARDEAU 10000′ / 5000′
MAC SOUTH
FAGUS MOA
IRK
UIN
CAP
DEC
MCM
HLV
CBI
STL
TOY
VLA
JEF
FTZ
ENL
VIH
FAM
MWA
MAP
CGI
CNG
DGD
MAW
V175
V206
V181
V10
V50
V10N
V10-206
V116
V424
V52
V63
V67
V129
V9-69
V173-233
V434
V72
V313
V191
V251
V9
V69
V4
V12
V125
V175W-239
V14
V426
V4-52
V52-446
V67-313
V44
V175W
V239
V234
V238
V9-335
V88-234
V14N
V14-88
V88S-289
V88S-132
V14-88-132
V132
V178
V190
V72-190
V335
V429
V45
V178N
V178S
V289
V159
V11-47
V305
V11W
V11E

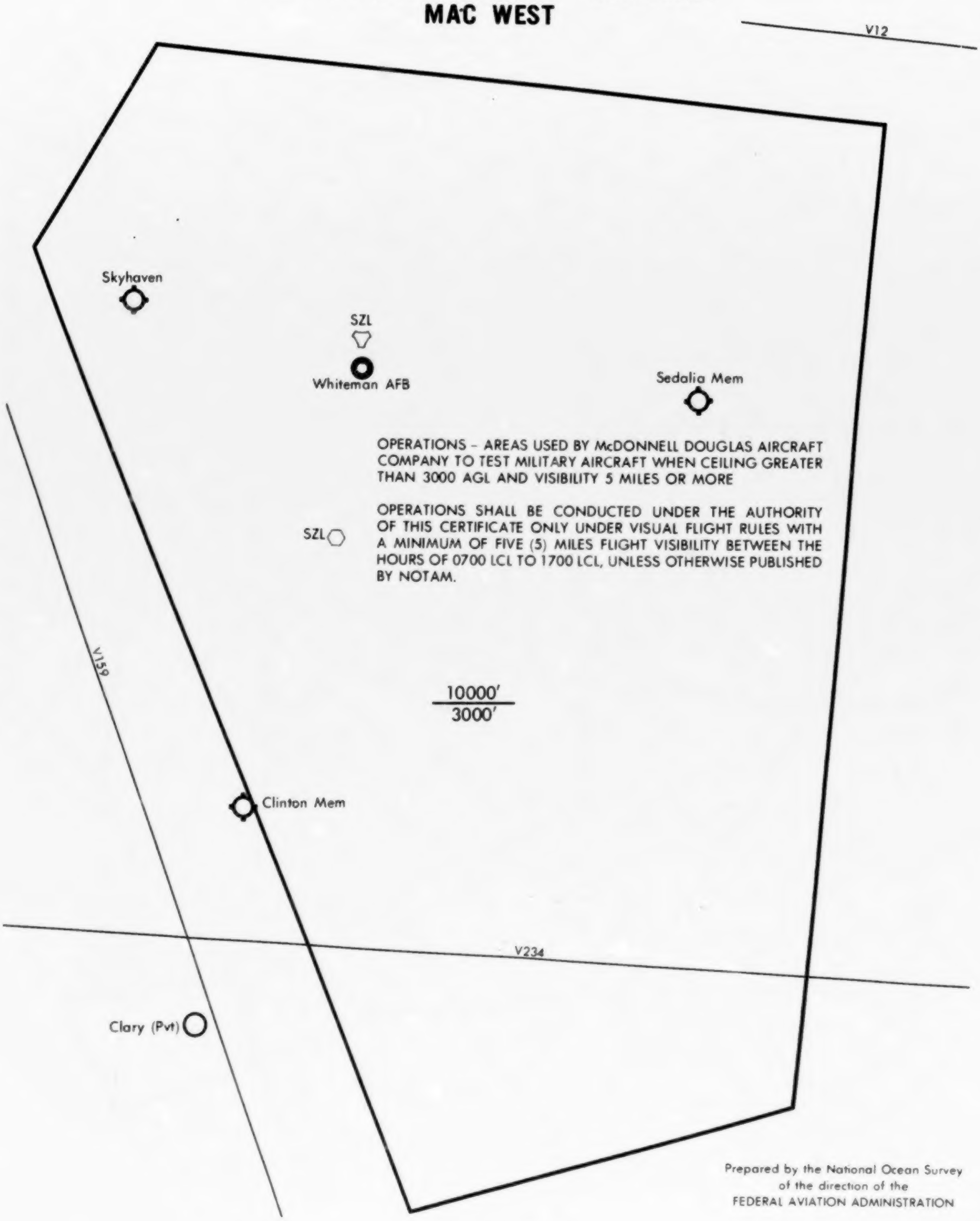
OPERATIONS-AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE.

OPERATIONS SHALL BE CONDUCTED UNDER THE AUTHORITY OF THIS CERTIFICATE ONLY UNDER VISUAL FLIGHT RULES WITH A MINIMUM OF FIVE (5) MILES FLIGHT VISIBILITY BETWEEN THE HOURS OF 0700 LCL TO 1700 LCL, UNLESS OTHERWISE PUBLISHED BY NOTAM.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

MCDONNELL AIRCRAFT COMPANY
MAC WEST


V12
Skyhaven
SZL
Whiteman AFB
Sedalia Mem
SZL
V159
10000′
3000′
Clinton Mem
V234
Clary (Pvt)

OPERATIONS – AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE

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Prepared by the National Ocean Survey
of the direction of the
FEDERAL AVIATION ADMINISTRATION

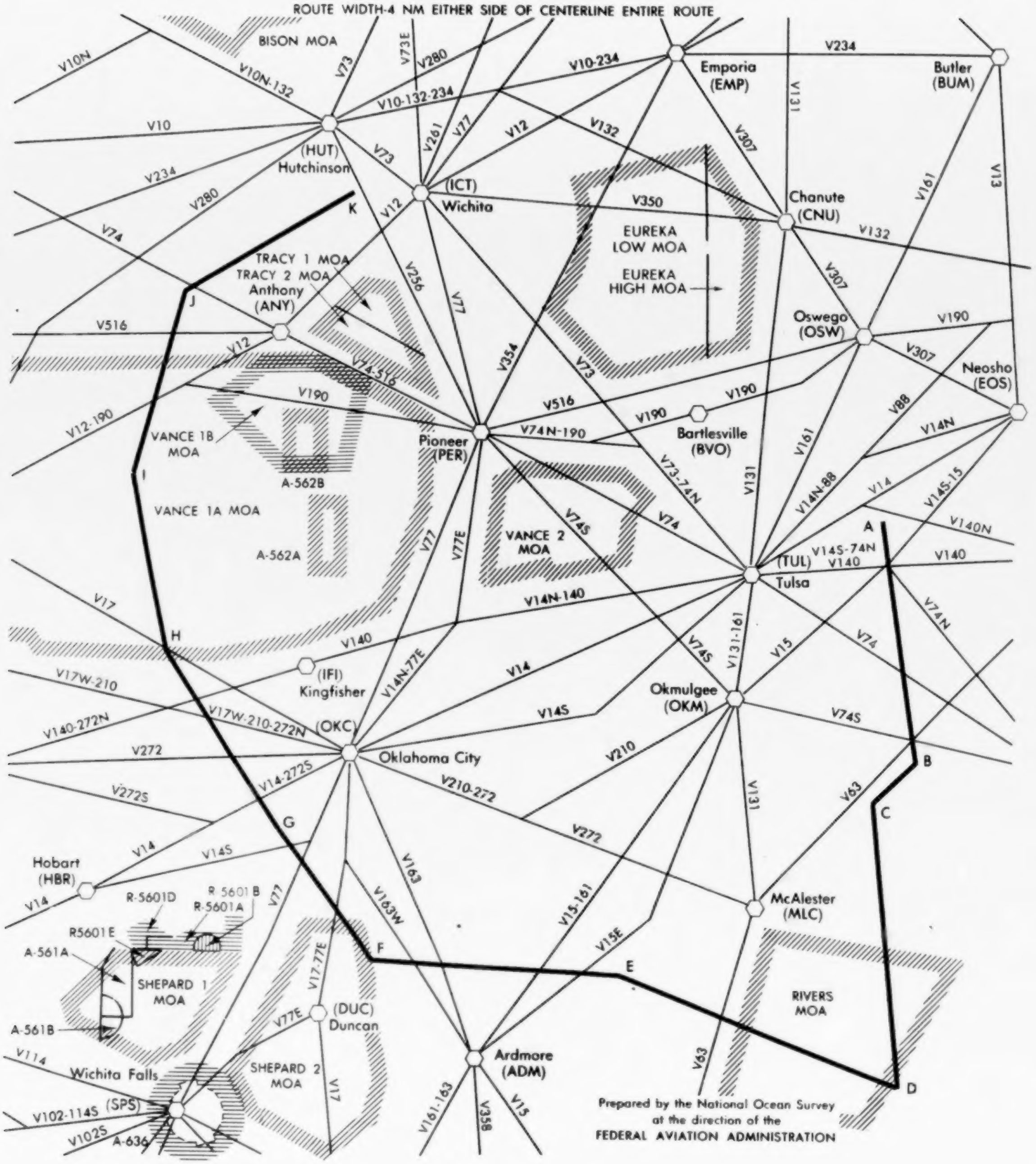
15 MAY 1980

BOEING LOW LEVEL ROUTE #1

HOURS OF OPERATION-CONTINUOUS

OPERATIONS-CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH-4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE


BISON MOA
V10N
V10N-132
V73
V73E
V280
V10-234
V10-132-234
V10
Emporia
(EMP)
V234
Butler
(BUM)
V131
(HUT)
Hutchinson
V261
V77
V12
V132
V307
V161
V13
V234
V280
V73
(ICT)
Wichita
V350
Chanute
(CNU)
V132
K
V74
V12
EUREKA
LOW MOA
EUREKA
HIGH MOA
TRACY 1 MOA
TRACY 2 MOA
Anthony
(ANY)
V256
V77
V307
J
V516
V12
V74-516
V354
V73
Oswego
(OSW)
V190
V307
Neosho
(EOS)
V190
V190
V516
V190
V88
V12-190
VANCE 1B
MOA
A-562B
Pioneer
(PER)
V74N-190
Bartlesville
(BVO)
V14N
V161
I
V73-74N
V131
V14N-88
V14
V14S-15
VANCE 1A MOA
A-562A
V77
V77E
VANCE 2
MOA
V74S
V74
A
V140N
(TUL)
Tulsa
V14S-74N
V140
V140
V74N
V17
V14N-140
H
V140
V74S
V131-161
V15
V74
(IFI)
Kingfisher
V17W-210
V14N-77E
V14
Okmulgee
(OKM)
V140-272N
V17W-210-272N
(OKC)
V14S
V74S
V272
Oklahoma City
V210
B
V14-272S
V272S
V210-272
V131
V63
C
G
V272
Hobart
(HBR)
V14
V14S
V163
V14
R-5601D
R-5601 B
R-5601 A
V77
V163W
V15-161
McAlester
(MLC)
R5601E
A-561A
F
V15E
E
SHEPARD 1
MOA
V17-77E
RIVERS
MOA
V77E
(DUC)
Duncan
A-561B
V114
Wichita Falls
SHEPARD 2
MOA
V17
Ardmore
(ADM)
V63
D
V102-114S
(SPS)
V161-163
V358
V15
V102S
A-636

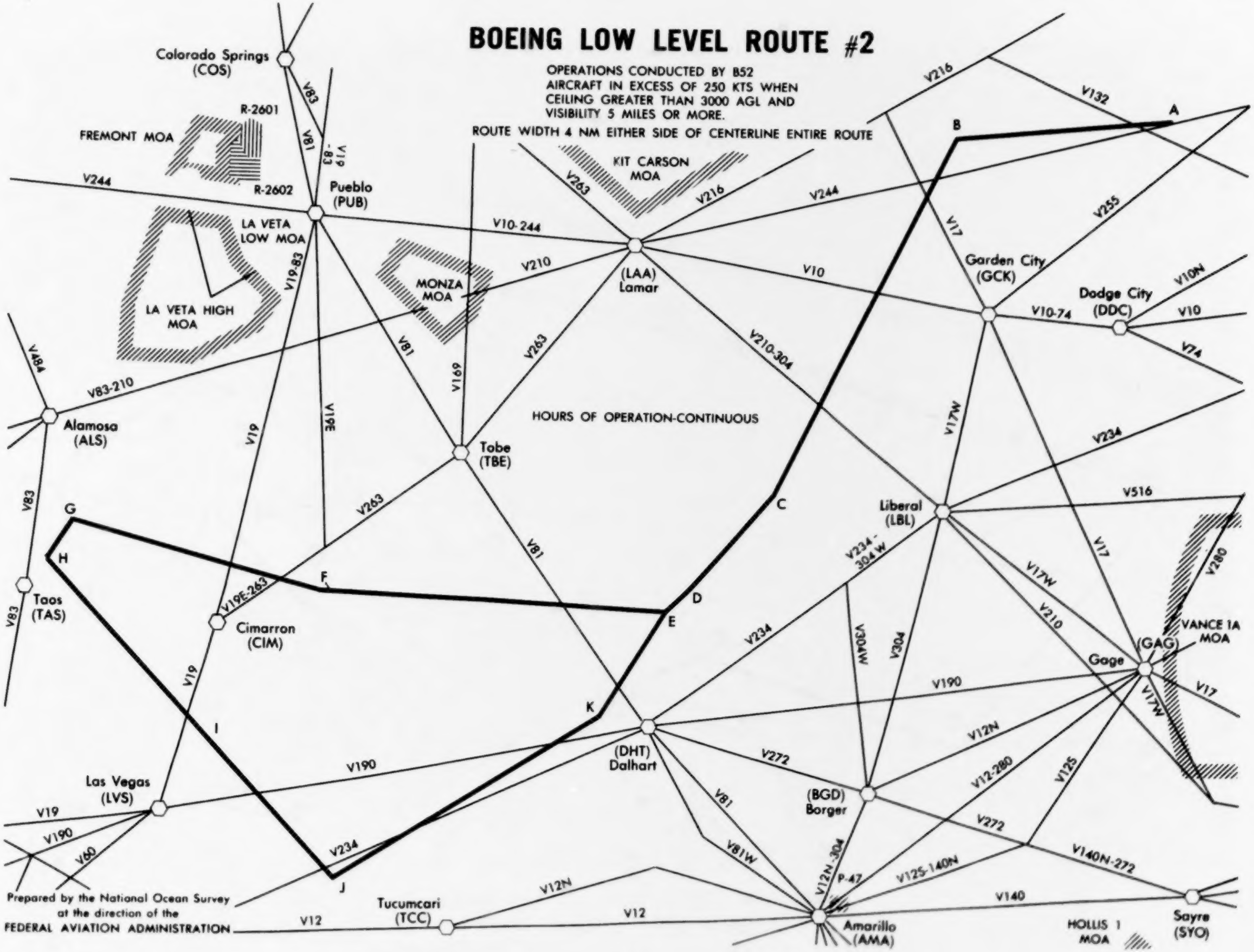
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

BOEING LOW LEVEL ROUTE #2

OPERATIONS CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH 4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE

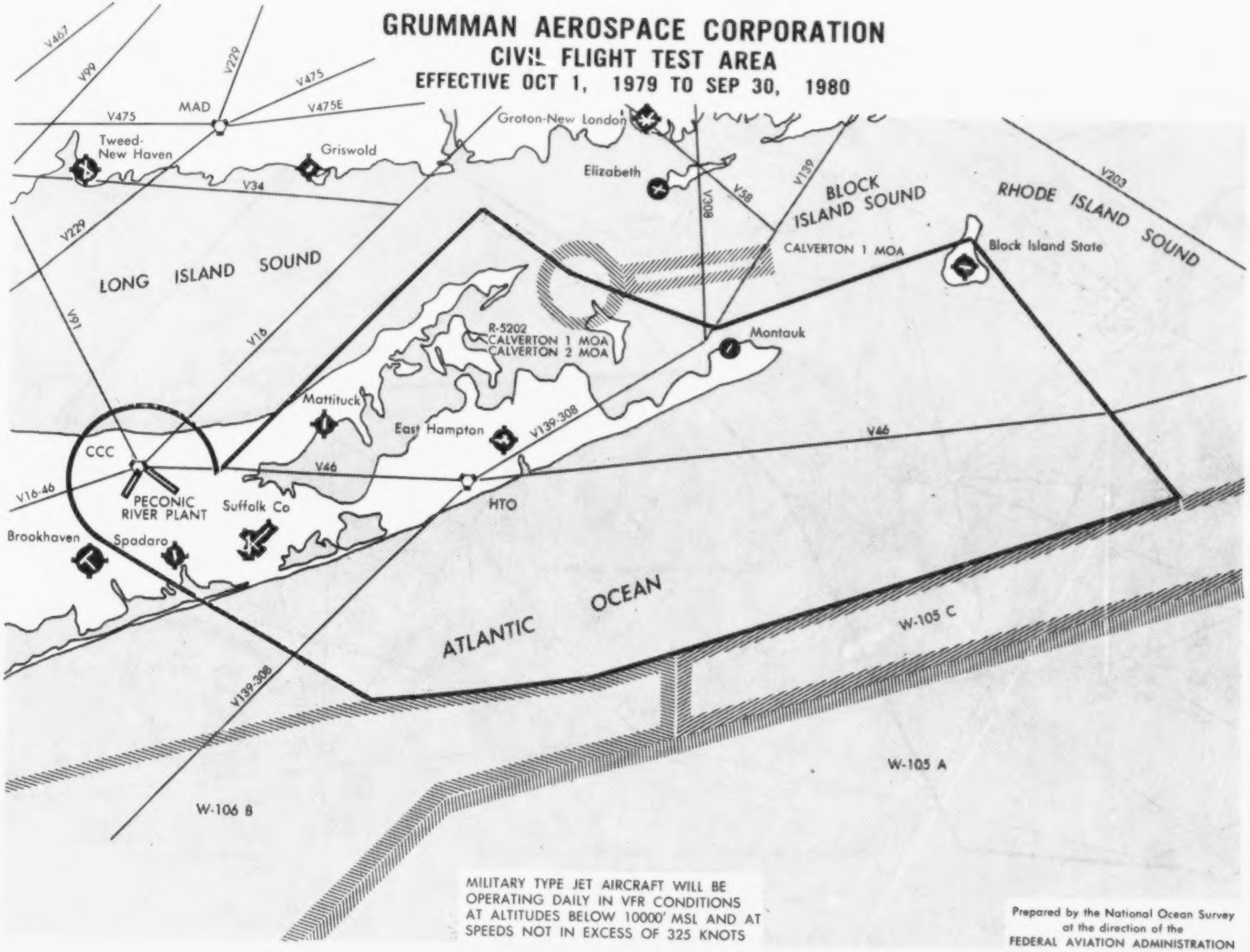


HOURS OF OPERATION-CONTINUOUS
Colorado Springs (COS)
Pueblo (PUB)
Alamosa (ALS)
Taos (TAS)
Las Vegas (LVS)
Cimarron (CIM)
Tobe (TBE)
(LAA) Lamar
Garden City (GCK)
Dodge City (DDC)
Liberal (LBL)
(DHT) Dalhart
(BGD) Borger
Gage (GAG)
Tucumcari (TCC)
Amarillo (AMA)
Sayre (SYO)
FREMONT MOA
R-2601
R-2602
LA VETA LOW MOA
LA VETA HIGH MOA
MONZA MOA
KIT CARSON MOA
VANCE 1A MOA
HOLLIS 1 MOA
P-47
A
B
C
D
E
F
G
H
I
J
K
V83
V81
V19-83
V244
V19-83
V19
V19E
V484
V83-210
V83
V10-244
V210
V169
V263
V216
V81
V263
V19E-263
V10
V210-304
V17
V255
V132
V10-74
V10N
V74
V17W
V234
V516
V234-304 W
V304W
V304
V17
V17W
V210
V280
V190
V12N
V12-280
V125
V272
V81
V81W
V12N-304
V125-140N
V140N-272
V140
V12
V12N
V19
V190
V60
V234

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

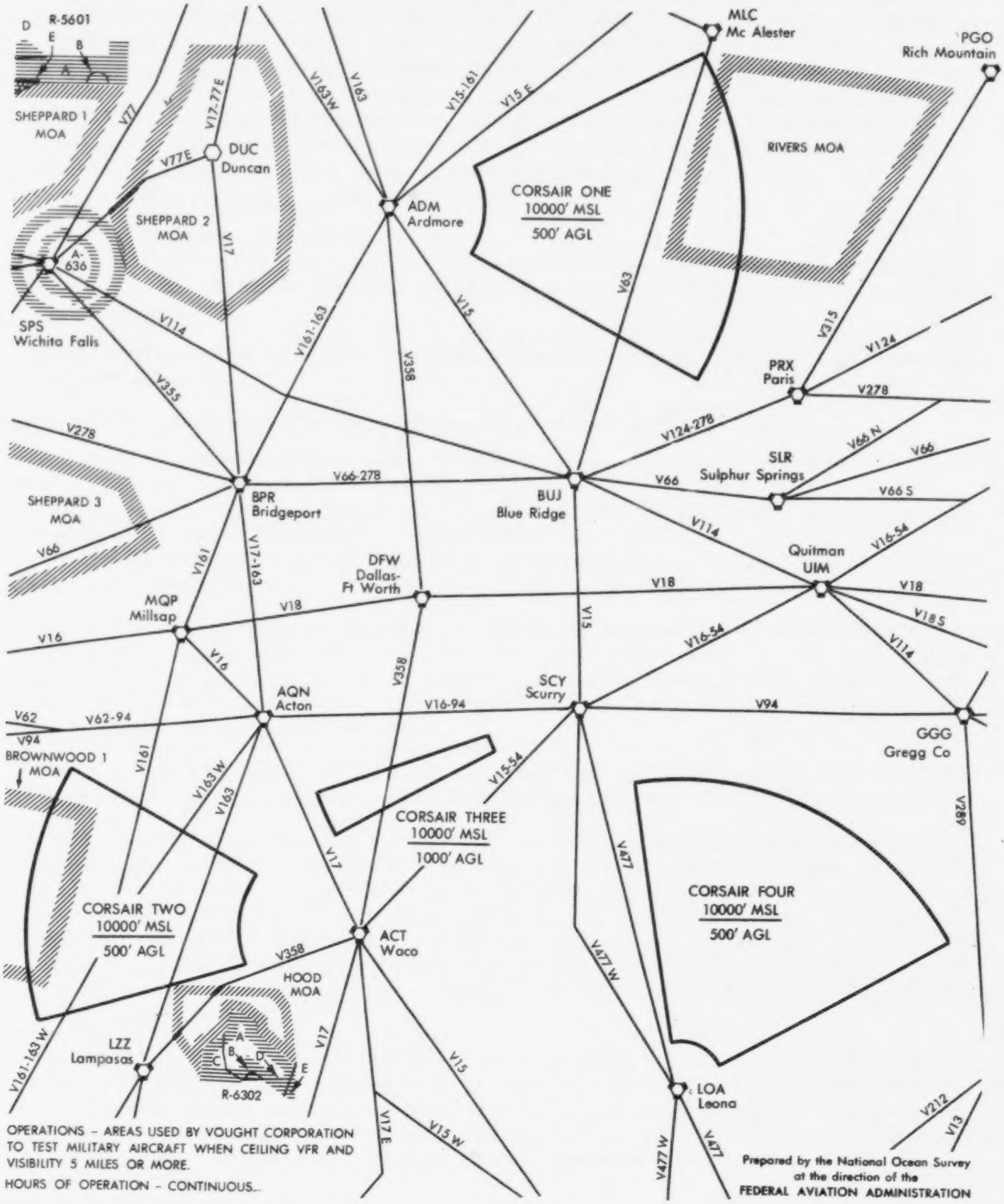
GRUMMAN AEROSPACE CORPORATION
CIVIL FLIGHT TEST AREA
EFFECTIVE OCT 1, 1979 TO SEP 30, 1980


V467
V99
V229
V475
V475E
MAD
V475
Tweed-New Haven
Griswold
V34
V229
Groton-New London
Elizabeth
V308
V58
V139
BLOCK ISLAND SOUND
RHODE ISLAND SOUND
V203
Block Island State
CALVERTON 1 MOA
LONG ISLAND SOUND
V91
V16
R-5202
CALVERTON 1 MOA
CALVERTON 2 MOA
Montauk
Mattituck
East Hampton
V139-308
V46
CCC
V16-46
V46
PECONIC RIVER PLANT
Suffolk Co
HTO
Brookhaven
Spadaro
ATLANTIC OCEAN
W-105 C
V139-308
W-105 A
W-106 B

MILITARY TYPE JET AIRCRAFT WILL BE OPERATING DAILY IN VFR CONDITIONS AT ALTITUDES BELOW 10000' MSL AND AT SPEEDS NOT IN EXCESS OF 325 KNOTS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

VOUGHT CORPORATION
LOW ALTITUDE FLYING AREAS


R-5601
D
E
B
A
SHEPPARD 1 MOA
V77
V17-77 E
V77E
DUC Duncan
SHEPPARD 2 MOA
V17
A-636
SPS Wichita Falls
V163W
V163
V15-161
V15 E
MLC Mc Alester
PGO Rich Mountain
RIVERS MOA
ADM Ardmore
CORSAIR ONE
10000' MSL
500' AGL
V63
V15
V358
V161-163
V114
V355
V315
V124
PRX Paris
V278
V124-278
SLR Sulphur Springs
V66 N
V66
V66 S
V278
SHEPPARD 3 MOA
V66
BPR Bridgeport
V66-278
BUJ Blue Ridge
V114
Quitman UIM
V16-54
V161
V17-163
DFW Dallas-Ft Worth
V18
V18
V18 S
MQP Millsap
V18
V16
V16
V358
V15
V16-54
V114
AQN Acton
V16-94
SCY Scurry
V94
GGG Gregg Co
V62
V62-94
V94
BROWNWOOD 1 MOA
V161
V163 W
V163
V15-54
CORSAIR THREE
10000' MSL
1000' AGL
V17
V477
V289
CORSAIR TWO
10000' MSL
500' AGL
CORSAIR FOUR
10000' MSL
500' AGL
ACT Waco
V358
HOOD MOA
A
B
C
D
E
R-6302
V477 W
V161-163 W
LZZ Lampasas
V17
V15
LOA Leona
V17 E
V15 W
V477 W
V477
V212
V13

OPERATIONS – AREAS USED BY VOUGHT CORPORATION TO TEST MILITARY AIRCRAFT WHEN CEILING VFR AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION – CONTINUOUS.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

NORTH ATLANTIC MINIMUM NAVIGATION REQUIREMENTS

The concept of minimum Navigation Performance Specifications (MNPS) has been adopted on a world-wide basis by the International Civil Aviation Organization (ICAO). MNPS has the objective of ensuring both safe separation of aircraft and also to enable operators to derive maximum economic benefit from the improvement in accuracy of navigation equipment which has been demonstrated in recent years. An implicit condition of MNPS is that all operators must maintain the specified operating standards and be aware of the inherent obligations of the MNPS requirements. The MNPS concept will be implemented on a regional basis. Certain areas of the North Atlantic (NAT) region have introduced the MNPS concept. These areas are known as NAT MNPS airspace and include the following defined airspace boundaries:

(a) between FL275 and FL400;
(b) between latitudes 27°N and 67°N;
(c) in the East – the Eastern boundaries of CTAs Santa Maria Oceanic, Shanwick Oceanic and Reykjavik;
(d) in the West – the Western boundaries of CTAs Reykjavik and Gander Oceanic and New York Oceanic East of longitude 60°W.

Aircraft used to conduct flights within the volume of aircspace specified shall have navigation performance capability such that:

(a) the standard deviation of lateral track errors shall be less than 6.3 NM (11.7 Km);

Note: As a considerable simplification, the above can be interpreted as a need for aircraft to stay within 12.6 NM (23.4 Km) of track for about 95% of the time.

(b) the proportion of the total flight time spent by aircraft 30 NM (55.6 Km) or more off the cleared track shall be less than $5.3x10^{-4}$ (i.e., less than 1 hour in about 2000 flight hours).

(c) the proportion of the total flight time spent by aircraft between 50 and 70 NM (92.6 and 129.6 Km) off the cleared track shall be less than $13x10^{-5}$ (i.e., less than 1 hour in about 8000 flight hours).

Such navigation performance capability shall be verified by the State of registry or the State of the aircraft operator as appropriate. Guidance material of use to those involved in the initial achievement and continued maintenance of the navigation capability set forth above has been issued by ICAO under the title "Guidance Material related to Air Navigation in the NAT Region" and will be supplemented and updated as required and as new material becomes available.

Flights entering MNPS airspace during any portion of their flight must enter the letter "X" after the letter "S" in item 10 of the ICAO flight plan to indicate that the flight has been certified as complying with MNPS.

Aircraft incapable of meeting MNPS in MNPS airspace will be given special consideration only in a very limited number of justified cases. Such consideration will require advance coordination between the requesting operator and the appropriate ATC authorities. The decision as to whether to allow such operations and, if so, the best method of operation will be made by the ATC authorities concerned with that airspace. The decision will be based upon the nature of the operation, the navigation capability of the aircraft, and the amount of air traffic forecast for the proposed time of operation. Final routing and/or handling or any such approved special arrangements will be in a manner that will not interfere with or impose a burden upon aircraft complying with MNPS.

The FAA has published Advisory Circular 91–49 offering a means of obtaining authorization to operate within NAT/MNPS airspace for operations conducted under FAR Part 91 and FAR Part 135. Advisory Circular 120–33 contains guidance for acquiring authorization to operate in NAT/MNPS airspace under FAR's 121, 123 and 135.2. Civil operators contemplating use of Loran C in MNPS airspace are advised to follow the MNPS certification process outlined in the appropriate advisory circular.

A. MONITORING OF NAVIGATION ACCURACIES

1. The data from which MNPS was calculated was derived from previous routine and special data collections involving radar observations and monitoring of equipment performance. In order to ensure that the MNPS are being met it is necessary to monitor the tracking accuracy of aircraft using the ATC radars which cover the exits from the oceanic airspace. The frequency of occurrence of the larger track deviations will be used as a measure of compliance with the second and third parameters of the specification. In cases of individual large errors, the pilot of the aircraft concerned will normally be notified by the ATC unit observing the error. The subsequent investigation may be carried out by the operator and its State of Registry after notification by the authority providing ATC service. If there is a serious increase in the number of large errors, it may become necessary to increase separation standards until remedial action has been determined. Alternatively if, rapid corrective action cannot be achieved, it may be necessary for the State of Registry or the State of the aircraft operator to temporarily exclude offending types of aircraft, or operators, from the "MNPS airspace."

2. An operator with MNPS approval who experiences a partial loss of navigation capability prior to entry in MNPS airspace should consider the following routes:

(a) STN/BEN-60N 10W-61N 1234W-LIMA-KF
(b) BEL-57N 10W-60N 15W-61N 1630W-MIKE-KF
(c) KF-XRAY-KK-SF-FB
(d) KF-UNIFORM-63N 30W-61N 40W-OZN
(e) OZN-59N 50W-PRAWN-KL
(f) OZN-59N 50W-PORGY-HO
(g) OZN-58N 50W-LOACH-YR

3. Operations on the above routes in MNPS airspace are subject to the following conditions:

(a) A revised flight plan is filed with ATC, and
(b) An appropriate ATC clearance is obtained.

(Note: A revised oceanic clearance will be issued only after coordination between all Oceanic Area Control centers concerned.)

(c) Sufficient navigation capability remains to meet the MNPS (i.e., redundancy may be lacking).

(d) The aircraft concerned may have to accept a lower than optimum flight level during peak traffic hours if the organized track structure extends to the northern part of the NAT.

(e) Nothing in these instructions override any redudancy requirements placed upon an operator by any Operations Specifications or FAR 121, 123, or 135.2, as appropriate.

B. ROUTES BETWEEN ICELAND AND NORTHERN EUROPE:

1. After a review of the navigation facilities available between Iceland and Northern Europe it has been agreed upon by the ICAO members that aircraft equipped with normal airways navigation equipment should be capable of meeting the MNPS when operating over certain routes between Iceland and Northern Europe. The routes will be designated G3 and G11 within and outside MNPS airspace.

G3 will be established as a route between Bergen via Myggenes and Ingo to Keflavik.
G11 will be established between Sumburgh via Akraberg to Myggenes.

2. Operation on certain routes between North Eastern Canada and Ireland or Northern United Kingdom via Iceland:

(a) It is anticipated that a continued requirement may exist for selected routes between N.E. Canada and Iceland and between Iceland and points in Ireland or the Northern U.K. which could be used by aircraft not

normally used in N. Atlantic operations or by aircraft on delivery. The routes listed in paragraph A-2 above should be used for such operations. Aircraft operating along these routes in MNPS airspace which are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

—Loran C

are considered capable of meeting MNPS while operating along these routes.

(b) The above-listed long range navigation equipment need not be permanent aircraft equipment.

C. ROUTES BETWEEN SPECIFIC POINTS IN PORTUGUESE TERRITORY:

1. Aircraft that are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

are considered capable of meeting MNPS while operating along the following routes:

(a) PST-35N 20W-FOXTROT TWO-VSM
(b) CP-3820N 15W-38N 20W-ECHO/DELTA-VSM/MGL
(c) CP-3853N 15W-39N 20W-BRAVO-LM

NORTH ATLANTIC STANDARDIZED AIR/GROUND MEESAGES

1. *General*

1.1 In order to make an evaluation it is proposed that within the North Atlantic (NAT) Region all ATS Air/Ground messages should be categorized under one of the following headings:

(a) Position report
(b) Request Clearance
(c) Revised estimate
(d) Miscellaneous air/ground message

The purpose of the evaluation is to determine whether pilot/controller response times can be improved.

1.2 In order to enable the ground stations to process messages in the shortest possible time, it is requested that pilots should observe the following rules:

1) use the correct type of message applicable to the data transmitted;
2) state the message type on the contact call to the ground station or at the start of the message (except if it is a miscellaneous message);
3) adhere strictly to the sequence of information for the type of message; and
4) all times on each of the messages should be expressed in hours and minutes.

2. *Period of evaluation and scope of application*

2.1 Operational evaluation using the new ATS message types will commence *at 0001 GMT on 22 March 1979.* During the initial period of seven months, data will be collected, analysed and further action taken as necessary. The procedures detailed for the transmission of air/ground messages will apply to transaltantic aircraft operating within or through the Gander, New York, Reykjavik, Santa Maria and Shanwick CTAs whether using HF or G/P VHF.

2.2 It will especially assist the communicators operating the Clearance Delivery Frequencies at Shanwick if westbound oceanic clearance requests are also transmitted in the format and data content specified in para 3.1.2 during the evaluation period.

3. *Description of ATS Message Types*

3.1 It should be appreciated that messages that have no ATS connection, e.g. SELCAL checks, form no part of this evaluation. For the purpose of the evaluation aircraft should transmit air/ground messages using standard RTF phraseology in accordance with the following:

3.1.1 *POSITION*

To be used for routine position reports.

CONTENT OF POSITION REPORT MESSAGE AND DATA SEQUENCE

(a) "POSITION"
(b) Flight identification
(c) Present position
(d) Time over present position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route
(g) Estimate for next position (hours and minutes)
(h) Any further information, e.g. AIREP data or Company message

3.1.2 *REQUEST CLEARANCE*

1) To be used in conjunction with a routine position report to obtain a change of Mach No., flight level or route and to obtain ***Westbound*** Oceanic clearance prior to entering Reykjavik, Santa Maria or Shanwick CTAs.

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Present or last reported position
(d) Time over present or last reported position (hours and minutes)
(e) Present flight level
(f) Next position on assigned route or oceanic entry point
(g) Estimate for next position or oceanic entry point (hours and minutes)
(h) Requested Mach No (if applicable)
(i) Requested flight level (if applicable)
(j) Requested route (if applicable)
(k) Further information or clarifying remarks

NOTE: the message implies that when a reclearance requested in respect of any single item in (h), (i) or (j) or any combination of these items it is to take effect as soon as possible unless otherwise stated in (k).

2) To be used to request a change of flight level or Mach No. *when a position report message is not appropriate.*

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

(a) "REQUEST CLEARANCE"
(b) Flight identification
(c) Requested flight level and/or Mach No.
(d) Further information of clarifying remarks

3.1.3 *REVISED ESTIMATE*

To be used to update estimate for next position.

CONTENT OF REVISED ESTIMATE MESSAGE AND DATA SEQUENCES

(a) "REVISED ESTIMATE"
(b) Flight identification
(c) Next position on assigned route
(d) Revised estimate for next position (hours and minutes)
(e) Any further information

3.1.4 *MISCELLANEOUS*

To be used to pass information or make a request in plain language that does not conform with the three other formats. No message type designator is required to be stated by the pilot since message type will be inserted by the ground station.

CONTENT OF MISCELLANEOUS MESSAGE AND DATA SEQUENCE

(a) Flight identification
(b) General information or request in plain language—form free.

NORTH AMERICAN ROUTES FOR NORTH ATLANTIC TRAFFIC (NAR)

GENERAL

(a) The NAR system has been developed to achieve the following objectives: (1) to organize the fluctuating and reversing traffic flows in the most efficient possible manner, consistent with the needs of aircraft operators and air traffic services; (2) to expedite flight planning; (3) to reduce the complexity of route clearances and thereby minimize the confusion and error potential inherent in lengthy transmissions and readbacks; and (4) to minimize the time spent by pilots and controllers in the route clearance delivery function.

(b) The NAR system comprises a series of pre-planned routes over existing airway/route systems from/to the following coastal fixes serving the North Atlantic traffic. Most of the NAR routes are divided into two portions.

(1) Common Portion – That portion of the route between the coastal fix and a specified Inland Navigation Facility. Example – Route NA108 common portion is "St. John's (Nfld) HL575 J575 Boston."

(2) Non-Common Portion – That portion of the route between the specified Inland Navigation Facility and the system airport being used by the flight. Example – Route NA108 non-common portion may be "Boston Norwich Saybrook Star Kennedy" or it may be "Boston Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143S Westminister Frederick 082 Radial Frederick Dulles," depending on whether the system airport being used by the flight is Kennedy or Dulles.

(c) These routes are numbered and prefixed by the abbreviation "NA." Odd route numbers have eastbound application only and even route numbers have westbound application only.

(d) Aircraft are considered to be within the NAR system when they join the system at an identified coastal fix; they join the system on departure from one of the identified airports; or when they join the system at an identified Inland Navigation Facility.

(e) Since a primary function of the NAR system is to complement the North Atlantic Organized Track System (NAT/OTS), a limited number of NAR routes appropriate for the coastal fixes serving the OTS and domestic traffic organization are included in the daily NAT/OTS messages published by the Gander and Shanwick OAC's.

(f) All aircraft that enter/exit the North Atlantic via the identified coastal fixes should use the NAR system if their domestic route requirements are compatible with the system. However, when necessary, an operator may flight plan a domestic route other than the one included in the current NAT/OTS message. Similarly, due to traffic conditions, Air Traffic Control may clear an aircraft via a route other than that flight planned.

FLIGHT PLANNING

(a) Route Description

(1) When the route of flight within the NAR system can be described by a single NAR designator, the route should be indicated on the flight plan using the appropriate designator.

(2) In all other cases, a full description of the route is required.

(3) Aircraft flight planning into or from either Goose or Gander Airports, Canada, may file the NAR designator as the route of flight.

ROUTE CLEARANCES

(a) For aircraft operating within the NAR system, the ATC clearance and pilot readback will be as follows:

> (flight identification) IS CLEARED TO THE (destination) AIRPORT VIA NORTH AMERICAN ROUTE (number).

(b) For aircraft operating within the NAR system either to or/from an airport not included in a non-common route, the ATC clearance and pilot readback may be as follows:

> ATC CLEARS (flight identification) TO (overseas destination) VIA J545 HL545 LONDON HL586 STIRLING HL555 BAIE COMEAU NORTH AMERICAN ROUTE 251 GOOSE FLIGHT PLANNED ROUTE...
>
> (flight identification) IS CLEARED TO THE CLEVELAND AIRPORT VIA NORTH AMERICAN ROUTE 246 CHARLEVOIX HL555 QUEBEC HL546 KLEINBURG HL558 LONDON HL545 J545 CLEVELAND...

(c) Westbound aircraft operating within the North Atlantic Organized Track System and destined for one of the selected North American Terminals served by the NAR System, having experienced communications failure prior to receipt of domestic route clearance should consider as its cleared route of flight the NAR associated with its cleared oceanic track as published in the current NAT/OTS message.

(d) Aircraft not operating within the NAR system will be cleared via a fully detailed route.

DOCUMENTATION

(a) It is expected that the following NAR documentation will be carried on the flight deck of each aircraft operating within the NAR system: (1) a description of the current NAR and (2) the information contained in the current NAT/OTS message.

(b) The official NAR route descriptions are contained in both Canadian Ministry of Transport (MOT) and U.S. Federal Aviation Administration (FAA) publications. The official FAA listing appears in both the INTERNATIONAL FLIGHT INFORMATION MANUAL, issued annually and amended quarterly, and in the publication GRAPHIC NOTICES AND SUPPLEMENTAL DATA (U.S. AIP section RAC-9), issued quarterly. Both publications contain identical listings. Changes to the NAR routes are advertised in the bi-weekly publication INTERNATIONAL NOTICES TO AIRMEN and the bi-weekly publication NOTICES TO AIRMEN (CLASS II).

(c) The following listing divides the NAR Route descriptions into two sections according to the direction of flight (Eastbound or Westbound). Each section is subdivided according to the route portion (common or non-common). The common portion describes the NAR route between the Coastal Fix and the Inland Navigational Facility. The non-common portion describes the route between the NAR route system airport being used and the Inland Navigational Facility.

SECTION I – NAR EASTBOUND ROUTES

(A) COMMON PORTION (EASTBOUND)

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA1	Winny	R56	Slatn
NA3	Nantucket	J62	Poggo
NA21	Nantucket	Control 1146 Whale Bluse	Sable Island
NA23	Watertown	J595 HL595 Saint John (N.B.) HL506	Sable Island
NA25	Beauce	HL509 J509 Patta Millinocket J506 FL506	Sable Island
NA41	Nantucket	J585 HL585 Yarmouth HL575 Halifax Canso	Color
NA43	Watertown	J595 HL595 Saint John (N.B.) HL506 Halifax Canso	Color
NA45	Beauce	HL509 J509 Patta Millinocket J506 HL506 Halifax Canso	Color
NA47	Canal	J575 HL575 Halifax Canso	Color
NA61	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509	Sydney
NA63	Beauce	HL509 J509 HL509	Sydney
NA65	Nantucket	J585 HL585 Yarmouth HL575	Sydney
NA67	Canal	J575 HL575	Sydney
NA81	Nantucket	J585 HL585 Yarmouth HL575	St. John's (Nfld)
NA83	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509 Sydney HL575	St. John's (Nfld)
NA85	Watertown	J595 HL595 St. John (N.B.) HL573	St. John's (Nfld)
NA87	Beauce	HL509 J509 HL509 Sydney HL575	St. John's (Nfld)
NA89	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573	St. John's (Nfld)
NA91	Canal	J575 HL575	St. John's (Nfld)
NA101	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577 Ramea	Vysta
NA103	Kennebunk	J573 HL573 Ramea	Vysta
NA105	Hyannis	J79 Seaer J573 HL573 Ramea	Vysta
NA107	Watertown	J595, HL595 Saint John (N.B.) HL573 Ramea	Vysta
NA109	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573 Ramea	Vysta

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA111	Canal	J575 HL575 Sydney HL577 Ramea	Vysta
NA121	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577	Gander
NA123	Kennebunk	J573 HL573 Channel Head HL500	Gander
NA125	Hyannis	J79 Seaer J573 HL573 Channel Head HL500	Gander
NA127	Watertown	J595 HL595 Saint John (N.B.) HL573 Channel Head HL500	Gander
NA129	Beauce	HL509 J509 HL509 Moncton HL500	Gander
NA131	Canal	J575 HL575 Sydney HL577	Gander
NA141	Kennebunk	J581 HL581 Stephenville HL579	Springdale
NA143	Kennebunk	J573 HL573 Channel Head	Springdale
NA145	Hyannis	J79 Bangor J581 HL581 Stephenville HL579	Springdale
NA147	Hyannis	J79 Seaer J573 HL573 Channel Head	Springdale
NA151	Beauce	HL509 J509 HL509 Cheps HL581 Stephenville HL579	Springdale
NA161	Kennebunk	J581 HL581 Conay	Dotty
NA163	Hyannis	J79 Bangor J581 HL581 Conay	Dotty
NA165	Beauce	HL509 J509 HL509 Cheps HL581 Conay	Dotty
NA167	Watertown	J595 Bangor J581 HL581 Conay	Dotty
NA181	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA183	Kennebunk	J55 Presque Isle J564 HL564 Charlo HL549	Natasquan
NA185	Hyannis	J79 Bangor J29 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA187	Riviere du Loup	HL560 Mont Joli HL553	Natashquan
NA201	Kennebunk	J581 HL581 Conay HL571	St. Anthony
NA203	Hyannis	J79 Bangor J581 HL581 Conay HL571	St. Anthony
NA207	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA209	Beauce	HL509 J509 HL509 Cheps HL581 Conay HL571	St. Anthony
NA211	Beauce	HL564 J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA213	Riviere du Loup	HL589 Heath Point HL571	St. Anthony
NA215	Riviere du Loup	HL560 Mont Joli HL553	St. Anthony
NA221	Kennebunk	J55 Presque Isle J564 HL564	Port Menier
NA223	Hyannis	J79 Bangor J29 Presque Isle J564 HL564	Port Menier
NA225	Cambridge	J49 Friar J55 Presque Isle J564 HL564	Port Menier
NA227	Riviere du Loup	HL560 Mont Joli HL553	Port Menier
NA241	Kennebunk	J55 Presque Isle J582 HL582 Sept Illes HL560	Goose
NA243	Kennebunk	J55 Presque Isle Lake Eon HL560	Goose
NA245	Hyannis	J79 Bangor J29 Presque Isle J582 HL582 Sept Iles HL560	Goose
NA247	Hyannis	J79 Bangor J29 Presque Isle Lake Eon HL560	Goose

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA249	Riviere du Loup	HL560	Goose
NA251	Baie Comeau	HL555 Lake Eon HL560	Goose
NA253	Cambridge	Sherbrook HL563 Riviere du Loup HL560	Goose
NA261	Kennebunk	J55 Presque Isle J582 HL582	Waco
NA263	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Waco
NA265	Cambridge	Sherbrooke HL563 Baie Comeau HL586	Waco
NA267	Baie Comeau	HL586	Waco
NA281	Kennebunk	J55 Presque Isle J582 HL582	Hopedale
NA283	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Hopedale
NA285	Cambridge	Sherbrooke HL563	Hopedale
NA287	Baie Comeau	HL563	Hopedale
NA289	Peck	J551 HL551	Hopedale

(B) NON-COMMON PORTION (EASTBOUND)

VIA BEAUCE

From	Non-Common Portions to Beauce
Montreal/Mirabel	V363 HL565
Montreal/Dorval	V352 HL509
Ottawa	V300 Valie Cote St. Luc
Toronto	V98 Stirling HL555 Montreal HL509
Detroit	Aylmer Toronto Stirling HL555 Montreal HL509
Chicago	London HL586 Stirling HL555 Montreal HL509

VIA BAIE COMEAU

From	Non-Common Portions to Baie Comeau
Montreal/Mirabel	V318 HL553 Charlevoix HL555
Montreal/Dorval	V352 V98 HL586
Ottawa	V360 V318 HL553 Charlevoix HL555
Toronto	V98 Stirling HL555
Detroit	Aylmer Toronto Stirling HL555
Chicago	London HL586 Stirling HL555

VIA CAMBRIDGE

There is no non-common portion to Cambridge.

VIA CANAL

There is no non-common portion to Canal.

VIA HYANNIS

There is no non-common portion to Hyannis.

VIA KENNEBUNK

There is no non-common portion to Kennebunk.

VIA NANTUCKET

From	Non-Common Portions to Nantucket
Kennedy	Sardi 7 Departure Direct

VIA PECK

From	Non-Common Portions to Peck
Chicago	Direct

VIA RIVIERE DU LOUP

From	Non-Common Portions to Riviere du Loup
Montreal/Mirabel	V318 HL553 Charlevoix
Montreal/Dorval	V352 V98 HL586 Quebec HL560
Toronto	V98 Stirling HL555 Quebec HL560
Ottawa	V360 V318 HL553 Charlevoix
Detroit	Aylmer Toronto Stirling HL555 Quebec HL560
Chicago	London HL586 Stirling HL555 Quebec HL560

VIA WATERTOWN

From	Non-Common Portions to Watertown
Chicago	London HL595 J595
Detroit	Aylmer Toronto
Toronto	V98 281 Radial Watertown

VIA WINNY

From	Non-Common Portions to Winny
Kennedy	Winny 2 Departure Direct

SECTION 2 - NAR WESTBOUND ROUTES

(A) COMMON PORTION (WESTBOUND)

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA2	Slatn	J97	Nantucket
NA4	Poggo	Direct	Hyannis
NA20	Sable Island	Bluse Whale Control 1146	Herin
NA22	Sable Island	HL506 Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA40	Color	Canso Halifax HL575 J575	Boston
NA42	Color	Canso Halifax HL575	Yarmouth
NA44	Color	Canso Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA60	Sydney	HL575	Yarmouth
NA62	Sydney	HL575 J575	Boston
NA464	Sydney	HL509 Moncton HL500 J500 HL500	Sherbrooke
NA80	St. John's (Nfld.)	HL575	Yarmouth
NA82	St. John's (Nfld.)	HL575 J575	Boston
NA84	St. John's (Nfld.)	HL575 Sydney HL509 Moncton HL500 J500 HL500	Sherbrook
NA100	Vysta	Ramea HL577 Sydney HL575	Yarmouth
NA102	Vysta	Ramea HL577 Sydney HL575 J575	Boston
NA104	Vysta	Ramea HL573 J573	Kennebunk
NA106	Vysta	Ramea HL573 Channel Head HL500 J500 HL500	Sherbrooke
NA120	Gander	HL577 Sydney HL575	Yarmouth
NA122	Gander	HL577 Sydney HL575 J575	Boston
NA124	Gander	HL500 Channel Head HL573 J573	Kennebunk
NA126	Gander	HL500 J500 HL500	Sherbrooke
NA140	Springdale	HL579 Stephenville HL581 J581	Kennebunk
NA142	Springdale	HL579 Stephenville HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA160	Dotty	Conay HL581 J581	Kennebunk
NA162	Dotty	Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA180	Natashquan	HL549 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA182	Natashquan	HL549 Charlo HL589	Riviere du Loup
NA184	Natashquan	HL553	Charlevoix
NA200	St. Anthony	HL571 Conay HL581 J581	Kennebunk
NA202	St. Anthony	HL571 Heath Point HL589 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA204	St. Anthony	HL553	Charlevoix
NA206	St. Anthony	HL571 Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA208	St. Anthony	HL571 Heath Point HL589	Riviere du Loup
NA210	St. Anthony	HL553 Mont Joli HL560	Riviere du Loup
NA220	Port Menier	HL564 J564 Presque Isle J55	Kennebunk
NA222	Port Menier	HL553 Mont Joli HL560	Riviere du Loup
NA224	Port Menier	HL553	Charlevoix
NA240	Goose	HL560 Lake Eon Presque Isle J55	Kennebunk
NA242	Goose	HL560 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA244	Goose	HL560 Riviere du Loup HL563 J563	Albany
NA246	Goose	HL560 Sept Iles HL555	Charlevoix

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA260	Waco	HL582 J582 Presque Isle J55	Kennebunk
NA262	Waco	HL586 Baie Comeau HL563 J563	Albany
NA264	Waco	HL586	Charlevoix
NA280	Hopedale	HL551 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA282	Hopedale	HL551 Wabush HL561 J561 Presque Isle J55	Kennebunk
NA284	Hopedale	HL551 Wabush HL561 Baie Comeau HL563 J563	Albany
NA286	Hopedale	HL551 Chibougamau HL570 J570	Albany
NA288	Hopedale	HL551 Wabush HL561 Baie Comeau HL555	Charlevoix
NA290	Hopedale	HL551 J551 Peck J94 Pullman V84 Pappi	Chicago
NA292	Hopedale	HL551 Chibougamau HL545	Midland
NA294	Hopedale	HL551 Chibougamau HL570	Montreal/Mirabel /Dorval
NA302	Schefferville	HL561 J561 Presque Isle J55	Kennebunk
NA304	Schefferville	HL561 Baie Comeau HL563 J563	Albany
NA306	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570 J570	Albany
NA308	Schefferville	HL561 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA310	Schefferville	HL548 Nitchequon HL545	Midland
NA312	Schefferville	HL561 Baie Comeau HL555	Charlevoix
NA314	Schefferville	HL548 J548 Pullman V84 Pappi	Chicago
NA316	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570	Montreal/Mirabel /Dorval

(B) NON-COMMON PORTION (WESTBOUND)

VIA ALBANY

Non-Common Portions from Albany

Albany	Kingston Kingston Arrival	Kennedy
Albany	Pawling Calverton Calverton 193 Radial J121 Coyle 100 Radial Coyle	McGuire
Albany	J49 Hancock V153 Lake Henry V149 Mazie	Philadelphia
Albany	Pawling Calverton Calverton 193 Radial J121 Sea Isle	Dover
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA BOSTON

Non-Common Portions from Boston

Boston	Norwich Saybrook 3 Arrival	Kennedy
Boston	J55 Providence J121 Coyle 100 Radial Coyle	McGuire
Boston	J55 Providence J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Boston	J55 Providence J121 Sea Isle	Dover
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA CHARLEVOIX

Non-Common Portions from Charlevoix

Charlevoix	HL555 Quebec HL546 St. Felix de Valois V316	Montreal/Mirabel /Dorval
Charlevoix	HL553 V360	Ottawa
Charlevoix	HL553 Midland HL587 V34 Kleinburg	Toronto
Charlevois	HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Charlevoix	HL553 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA CHICAGO

There is no non-common portion from Chicago.

VIA HERIN

Non-Common Portions from Herin

Herin	Control 1142 Hyannis 014 Radial Scupp	Boston
Herin	J174 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Herin	J174 J121 Coyle 100 Radial Coyle	McGuire
Herin	J174 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Herin	J174 J121 Sea Isle	Dover
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA HYANNIS

Non-Common Portions from Hyannis

Hyannis	Hyannis 014 Radial Scupp	Boston
Hyannis	Hyannis Transition Suffolk 3 Arrival	Kennedy
Hyannis	J150 J121 Coyle 100 Radial Coyle	McGuire
Hyannis	J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Hyannis	J150 J121 Sea Isle	Dover
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA KENNEBUNK

Non-Common Portions from Kennebunk

Kennebunk	Kennebunk 178 Radial Scupp	Boston
Kennebunk	Kennebunk Transition Saybrook 3 Arrival	Kennedy
Kennebunk	J55 J121 Coyle 100 Radial Coyle	McGuire
Kennebunk	J55 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Kennebunk	J55 J121 Sea Isle	Dover
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA MIDLAND

Non-Common Portions from Midland

Midland	HL587 V34 Kleinburg	Toronto
Midland	HL545 London HL586 V98 Desdn V2 Rhyme	Detroit

VIA MONTREAL/MIRABEL/DORVAL

There is no non-common portion from Montreal/Mirabel/Dorval.

VIA NANTUCKET

Non-Common Portions from Nantucket

Nantucket	Nantucket 308 Radial J150 Hampton Suffolk 3 Arrival	Kennedy

VIA RIVIERE DU LOUP

Non-Common Portions from Riviere du Loup

Riviere du Loup	**HL560 Quebec HL546 St. Felix de Valois V316**	**Montreal/Mirabel/Dorval**
Riviere du Loup	**Charlevoix H553 V360**	**Ottawa**
Riviere du Loup	**Charlevoix HL553 Midland HL587 V34 Kleinburg**	**Toronto**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme**	**Detroit**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 J546 Peck J94 PUllman V84 Pappi**	**Chicago**

VIA SHERBROOKE

Non-Common Portions from Sherbrooke

Sherbrooke	HL500 V300 St. Jean (Que)	Montreal/Mirabel/Dorval
Sherbrooke	HL500 St. Jean (Que) V487 Montreal V316	Ottawa
Sherbrooke	HL500 Ottawa HL553 Midland HL587 V34 Kleinburg	Toronto
Sherbrooke	HL500 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Sherbrooke	HL500 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA YARMOUTH

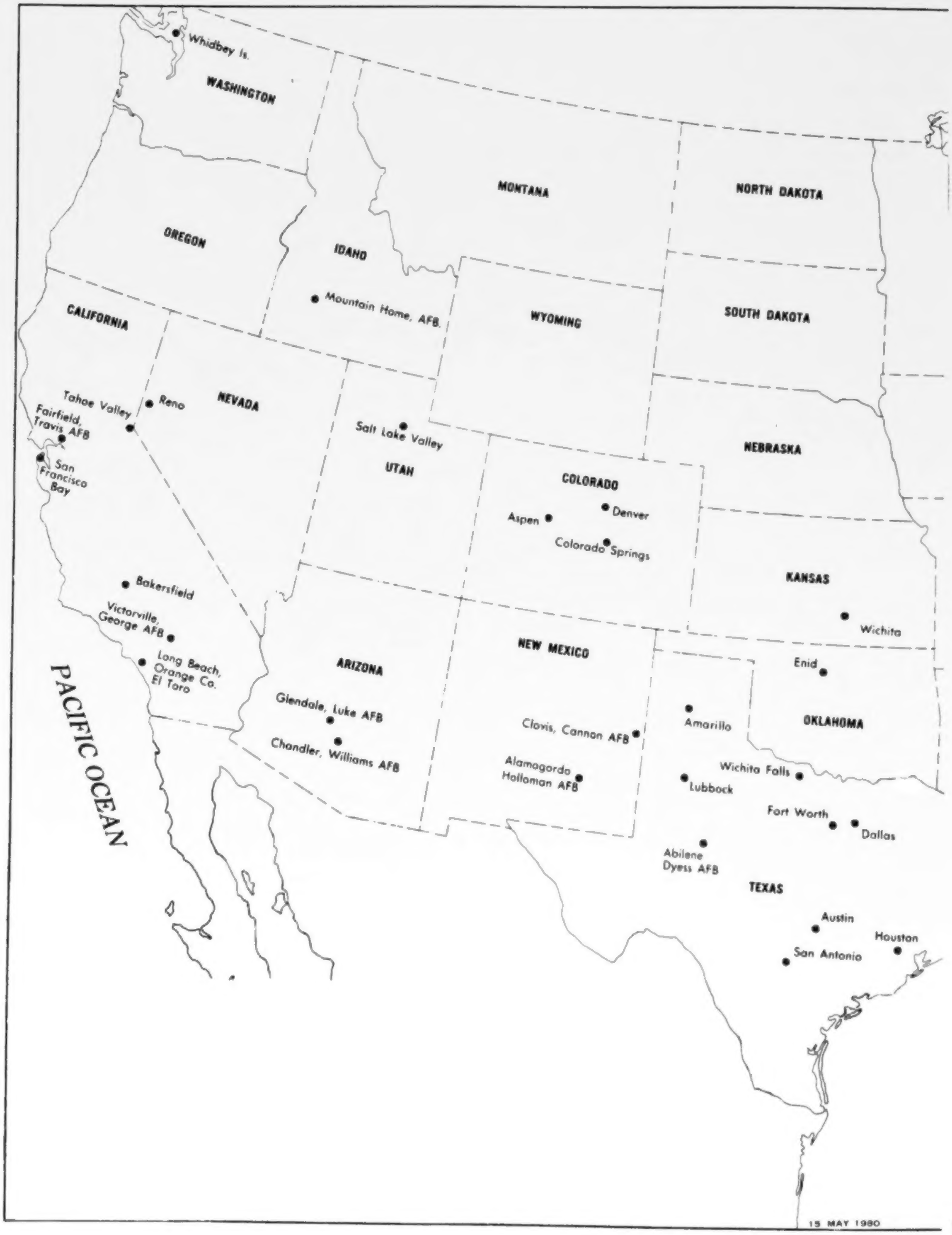
Non-Common Portions from Yarmouth

Yarmouth	HL575 J575 Scupp	Boston
Yarmouth	HL585 J585 J150 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial Coyle	McGuire
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Yarmouth	HL585 J585 J150 J121 Sea Isle	Dover
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

TERMINAL AREA GRAPHIC NOTICES

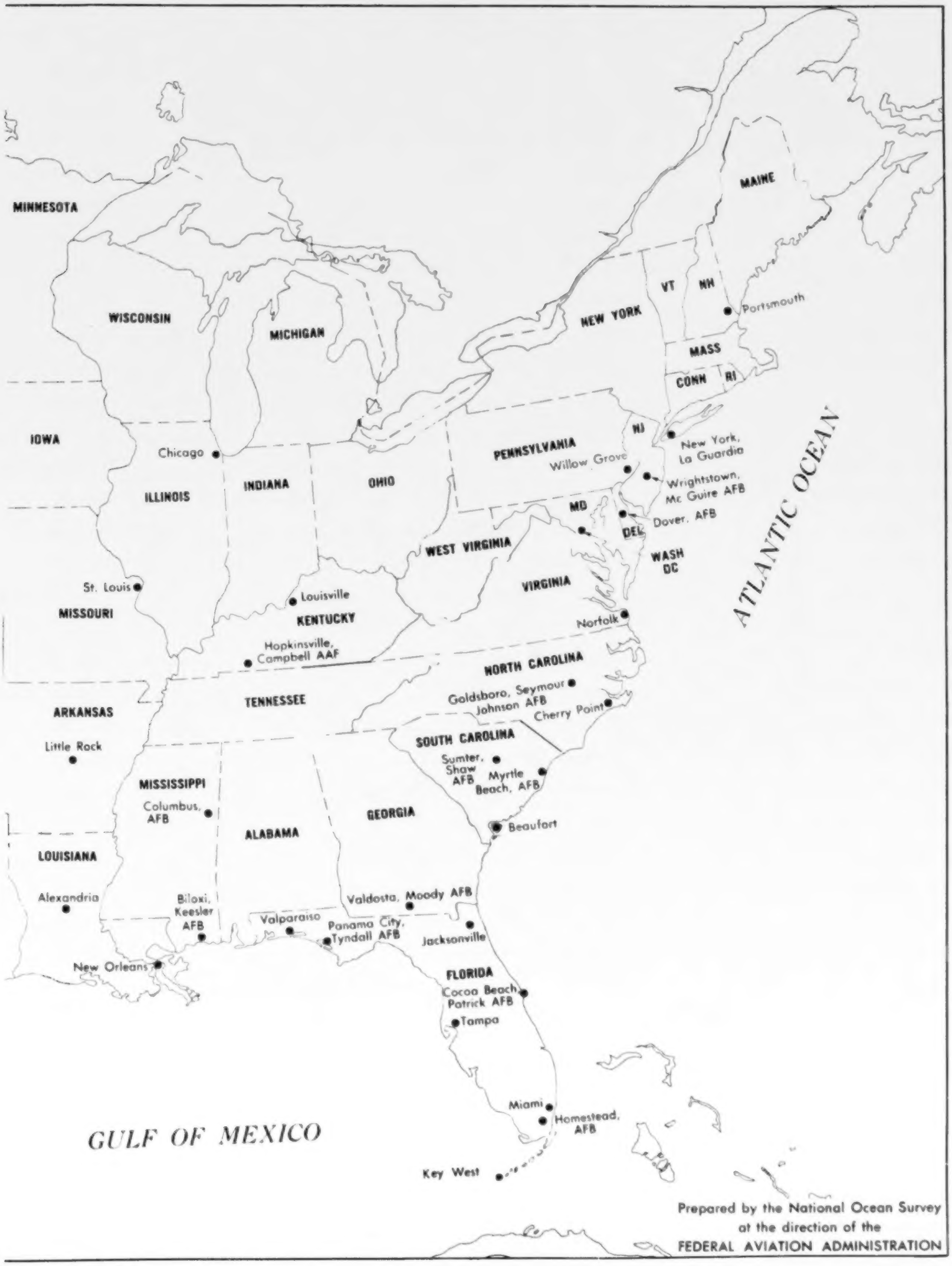
Under this heading, on the following pages, will be found a number of graphics showing areas of concentrated traffic for the information and guidance of pilots operating under VFR in the terminal areas depicted. The graphics are intended to assist VFR pilots planning flight in the areas and in many instances recommended or suggested VFR routes/corridors are shown. The information presented is in no way to be considered mandatory or "legal": it is advisory only.

INDEX OF TERMINAL AREA GRAPHIC NOTICES


Whidbey Is.
WASHINGTON
MONTANA
NORTH DAKOTA
OREGON
IDAHO
Mountain Home, AFB.
WYOMING
SOUTH DAKOTA
CALIFORNIA
NEVADA
Tahoe Valley
Reno
Fairfield, Travis AFB
San Francisco Bay
Salt Lake Valley
UTAH
NEBRASKA
COLORADO
Aspen
Denver
Colorado Springs
KANSAS
Wichita
Bakersfield
Victorville, George AFB
Long Beach, Orange Co. El Toro
PACIFIC OCEAN
ARIZONA
NEW MEXICO
Enid
Glendale, Luke AFB
Chandler, Williams AFB
Clovis, Cannon AFB
Amarillo
OKLAHOMA
Alamogordo Holloman AFB
Wichita Falls
Lubbock
Fort Worth
Dallas
Abilene Dyess AFB
TEXAS
Austin
Houston
San Antonio

15 MAY 1980

INDEX OF TERMINAL AREA GRAPHIC NOTICES


MINNESOTA
WISCONSIN
MICHIGAN
NEW YORK
VT
NH
MAINE
Portsmouth
MASS
CONN
RI
IOWA
Chicago
ILLINOIS
INDIANA
OHIO
PENNSYLVANIA
Willow Grove
NJ
New York, La Guardia
Wrightstown, Mc Guire AFB
MD
DEL
Dover, AFB
WASH DC
ATLANTIC OCEAN
WEST VIRGINIA
VIRGINIA
Norfolk
St. Louis
Louisville
MISSOURI
KENTUCKY
Hopkinsville, Campbell AAF
NORTH CAROLINA
Goldsboro, Seymour Johnson AFB
Cherry Point
ARKANSAS
TENNESSEE
Little Rock
SOUTH CAROLINA
Sumter, Shaw AFB
Myrtle Beach, AFB
MISSISSIPPI
Columbus, AFB
ALABAMA
GEORGIA
Beaufort
LOUISIANA
Alexandria
Biloxi, Keesler AFB
Valparaiso
Panama City, Tyndall AFB
Valdosta, Moody AFB
Jacksonville
New Orleans
FLORIDA
Cocoa Beach Patrick AFB
Tampa
Miami
Homestead, AFB
GULF OF MEXICO
Key West

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

NEW GRAPHIC-★
MAJOR REVISION-†

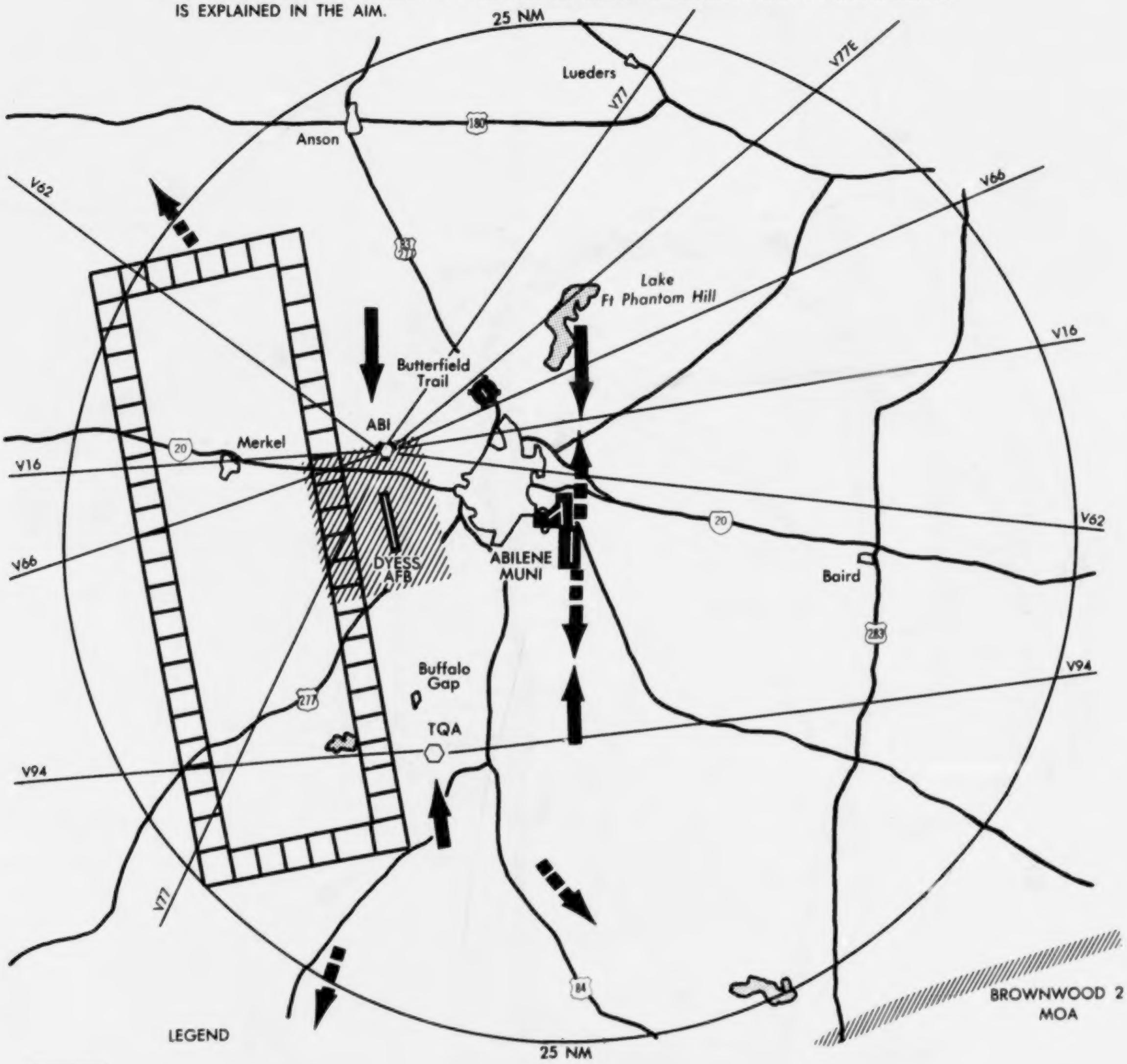
TABLE OF CONTENTS

Abilene, Dyess AFB, Tx. Term-5
Alamogordo, Holloman AFB, N.M. Term-6
Alexandria, La. Term-7
Amarillo, Tx. Term-8
Aspen, Co. Term-9
Austin, Tx. Term-10
Bakersfield, Ca. Term 11
Beaufort, S.C. Term-12
Biloxi, Keesler AFB, Ms. Term-13
Chandler, Williams AFB, Az. Term-14
Cherry Point, N.C. Term-15
Chicago, Il. Term-16
Clovis, Cannon AFB, N.M. Term-17
Cocoa Beach, Patrick AFB. Fl. Term-18
Colorado Springs, Co. Term-19
Columbus, AFB, Ms. Term-20
Dallas, Tx. Term-21
Denver, Co. Term-22
Dover, AFB, De. Term-23
Enid, Ok. Term-24
Fairfield, Travis AFB, Ca. Term-25
Fort Worth, Tx. Term-26
Glendale, Luke AFB, Az. Term-27
Goldsboro, Seymour Johnson AFB, N.C. Term-28
Homestead AFB, Fl. Term-29
Hopkinsville, Campbell AAF, Ky. Term-30
Houston, Tx. Term-31
Jacksonville, Fl. Term-32
Key West, Fl. Term-33
Little Rock, Ar. Term-34
Long Beach, Orange Co. El Toro, Ca. Term-35
Louisville, Ky. Term-36
Lubbock, Tx. Term-37
Miami, Fl. Term 38
Mountain Home, AFB, Id. Term-39
Myrtle Beach, AFB, S.C. Term-40
New Orleans, La. Term-41
New York, La Guardia, N.Y. Term-42
Norfolk, Va. Term-43
Panama City, Tyndall AFB, Fl. Term-44
Portsmouth, Pease AFB, N.H. Term-45
Reno, Nv. Term-46
St. Louis, Mo. Term-47
Salt Lake Valley, Ut. Term-48
San Antonio, Tx. Term-49
San Francisco Bay, Ca. Term-50
Sumter, Shaw AFB, S.C. Term-51
Tahoe Valley, Ca. Term-52
Tampa, Fl. Term-53
Valdosta, Moody AFB, Ga. Term-54
Valparaiso, Fl. Term-55
Victorville, George AFB, Ca. Term-56
Whidbey Is., Wa. Term-57
Wichita, Ks. Term-58
Wichita Falls, Tx. Term-59
Willow Grove, Pa. ★Term-60
Wrightstown, McGuire AFB, N.J. Term-61
Washington Nat'l Arpt. Noise Abatement Procedure Term-62

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ABILENE-DYESS, TEXAS

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. AIRCRAFT LANDING ABILENE MUNICIPAL ARE ENCOURAGED TO CONTACT ABILENE APPROACH CONTROL ON 121.3 MHz APPROXIMATELY 25 MILES OUT FOR STAGE II SERVICES. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


25 NM
Lueders
V77
V77E
180
Anson
V62
V66
277
Lake
Ft Phantom Hill
V16
Butterfield
Trail
ABI
20
Merkel
V16
V62
V66
DYESS
AFB
ABILENE
MUNI
20
Baird
283
Buffalo
Gap
V94
277
TQA
V94
V77
84
BROWNWOOD 2
MOA
25 NM

LEGEND

▭▭▭ RADAR VECTOR PATTERN 4000 MSL

▨ AIRPORT TRAFFIC PATTERN 3500 MSL

➡ TURBO JET ARRIVAL ROUTE

■■➡ TURBO JET DEPARTURE ROUTE

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

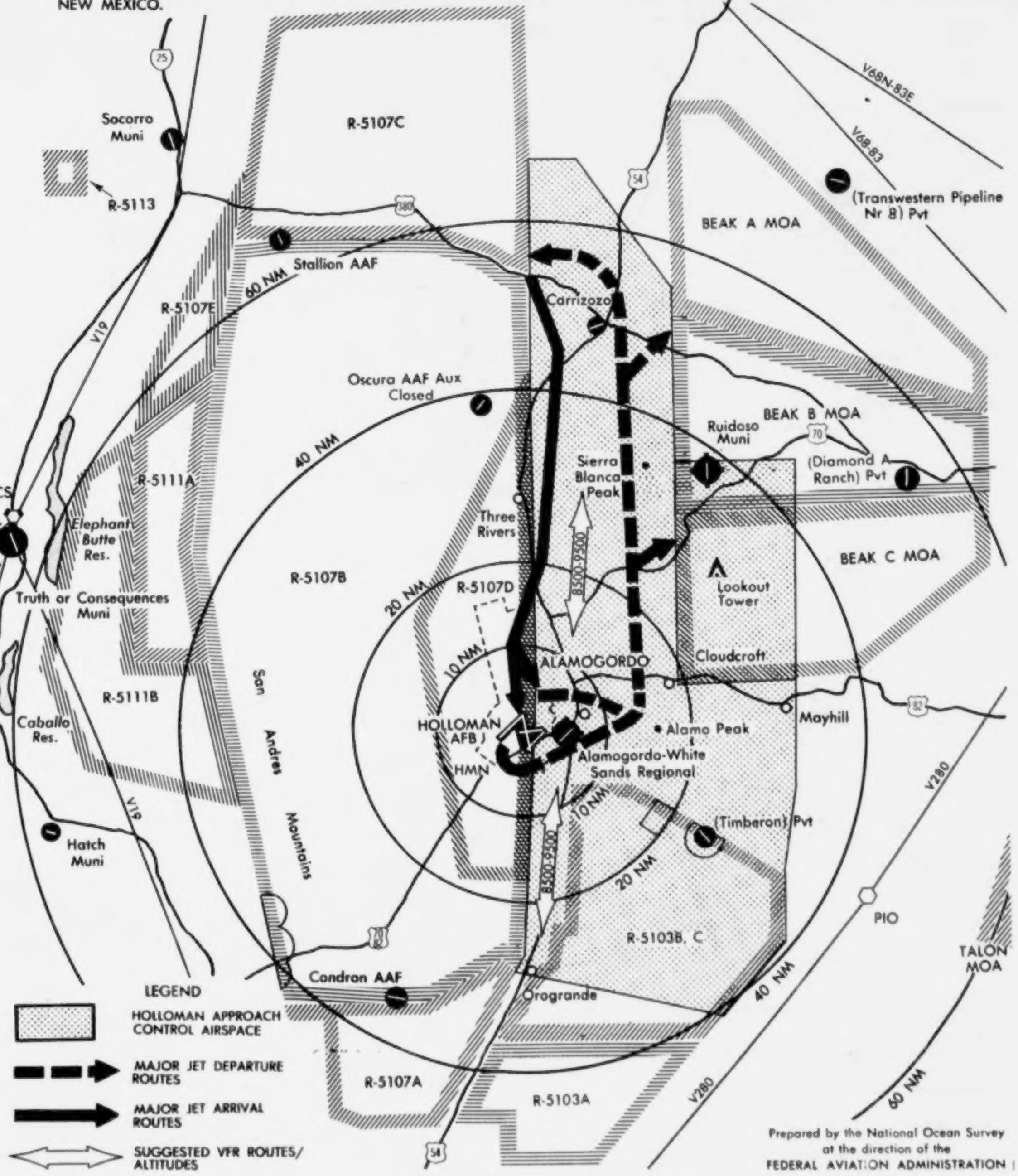
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALAMOGORDO, HOLLOMAN AFB, NEW MEXICO

THIS NOTICE DEPICTS THE FLOW OF AIR TRAFFIC WITHIN THE HOLLOMAN AREA. THE PURPOSE OF THE CHART IS TO ASSIST PILOTS OPERATING VFR IN PLANNING THEIR ROUTE INTO AND THROUGH THE AREA. VFR AIRCRAFT SHOULD CONTACT HOLLOMAN APPROACH CONTROL ON 120.6 OR 324.3 FOR STAGE II SERVICE. CAUTION: HIGH SPEED JET AIRCRAFT CROSSING HIGHWAY 54, EAST TO WEST AT OR BELOW 2000 AGL IN THE VICINITY OF THREE RIVERS, NEW MEXICO.


25
Socorro Muni
R-5113
R-5107C
380
54
V68N-83E
V68-83
(Transwestern Pipeline Nr 8) Pvt
BEAK A MOA
Stallion AAF
60 NM
R-5107E
Carrizozo
V19
Oscura AAF Aux Closed
Ruidoso Muni
BEAK B MOA
70
40 NM
Sierra Blanca Peak
(Diamond A Ranch) Pvt
R-5111A
TCS
V202
V110
Elephant Butte Res.
Three Rivers
BEAK C MOA
8500-9500
Truth or Consequences Muni
R-5107B
R-5107D
20 NM
Lookout Tower
10 NM
ALAMOGORDO
Cloudcroft
R-5111B
San Andres Mountains
82
Mayhill
HOLLOMAN AFB
Alamo Peak
Caballo Res.
HMN
Alamogordo-White Sands Regional
V280
V19
10 NM
(Timberon) Pvt
Hatch Muni
8500-9500
20 NM
PIO
R-5103B, C
TALON MOA
Condron AAF
Orogrande
40 NM
LEGEND
HOLLOMAN APPROACH CONTROL AIRSPACE
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES/ ALTITUDES
R-5107A
R-5103A
V280
60 NM
54

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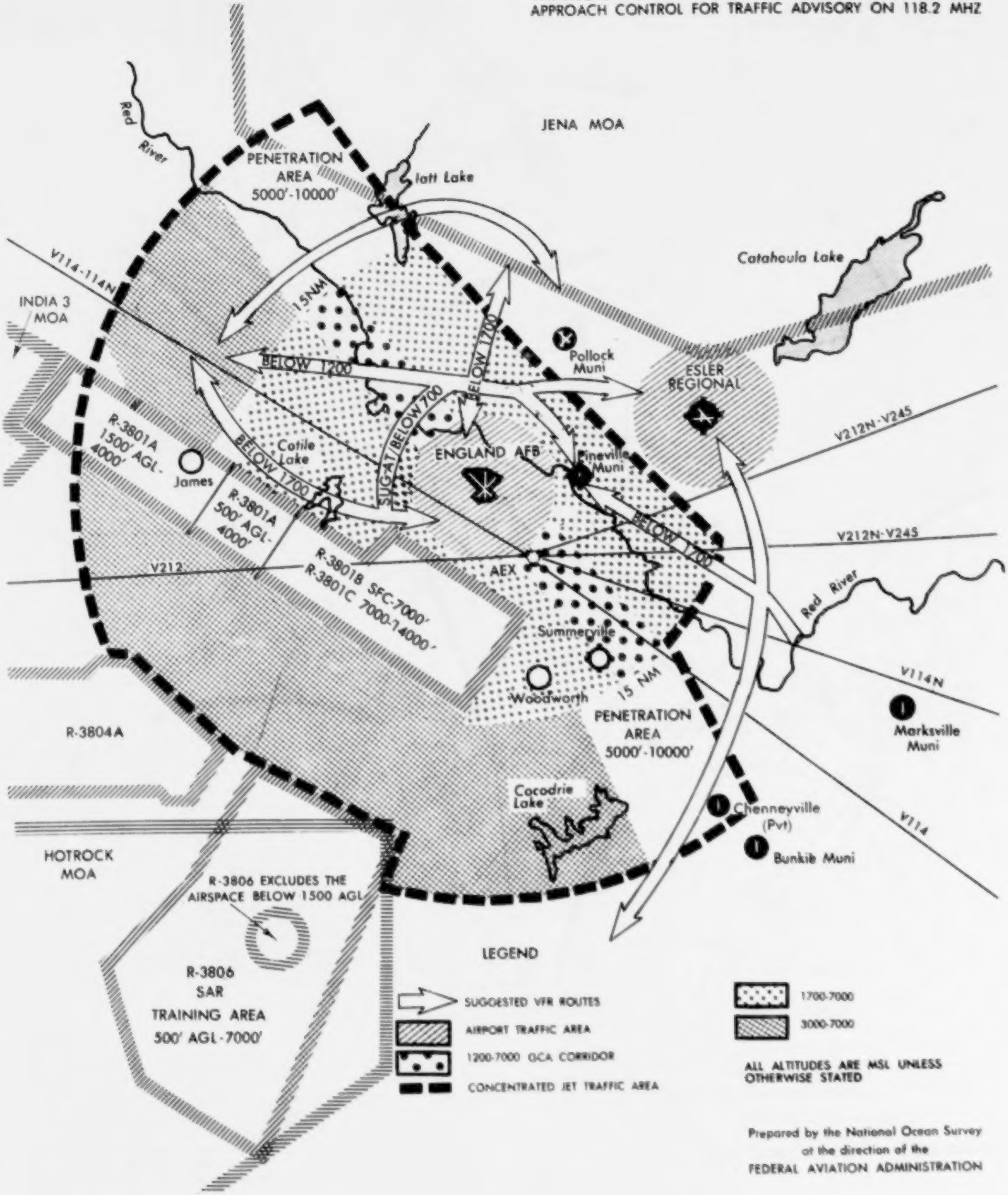
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALEXANDRIA, LOUISIANA

VFR PILOTS ARE ENCOURAGED TO CONTACT ALEXANDRIA APPROACH CONTROL FOR TRAFFIC ADVISORY ON 118.2 MHZ

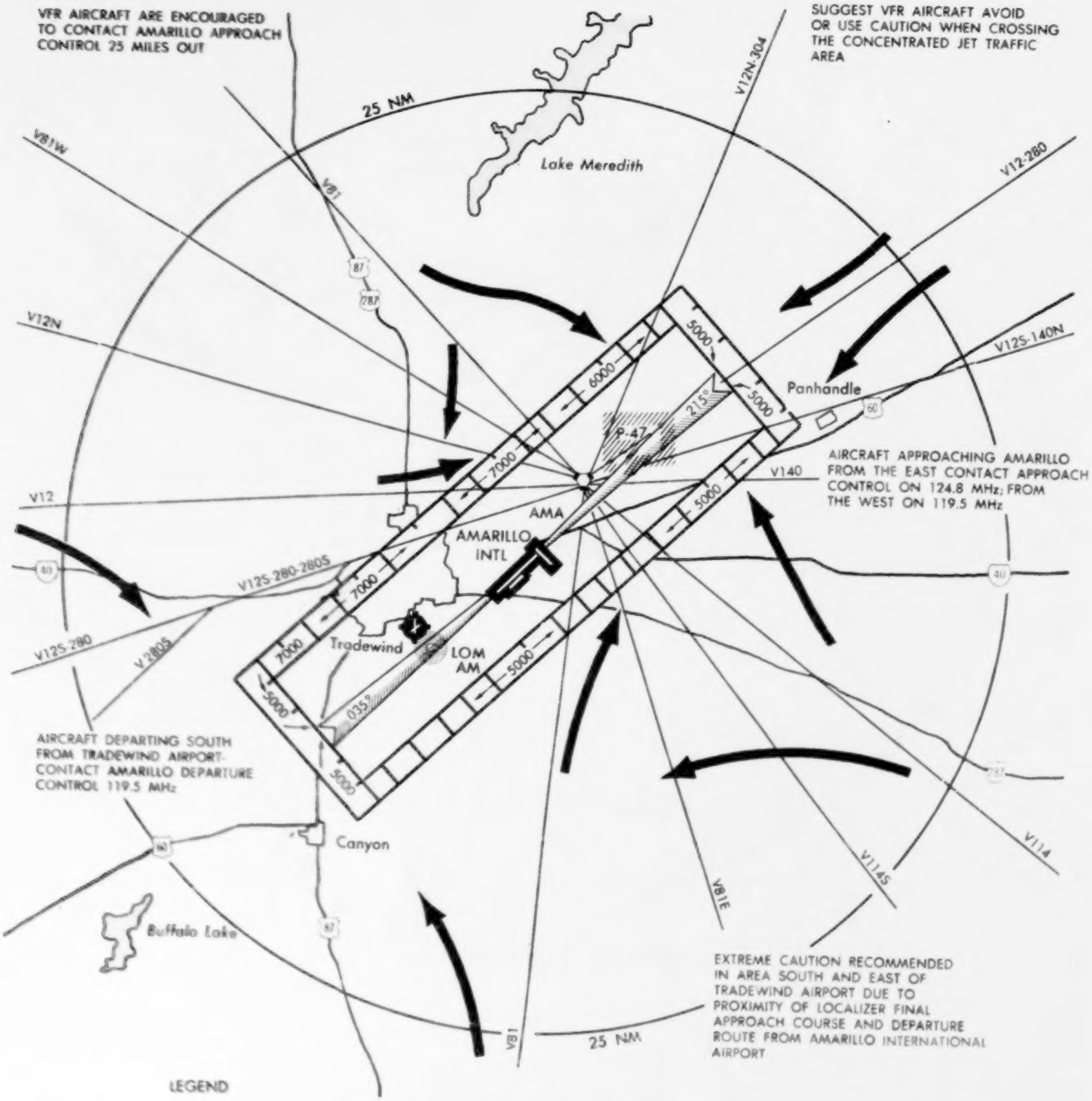

Red River
JENA MOA
PENETRATION AREA 5000'-10000'
Iatt Lake
Catahoula Lake
V114-114N
INDIA 3 MOA
15NM
BELOW 1200
BELOW 1700
BELOW 700
Pollock Muni
ESLER REGIONAL
V212N-V245
R-3801A 1500' AGL-4000'
James
Catile Lake
BELOW 1700
GCA BELOW 700
ENGLAND AFB
Pineville Muni
R-3801A 500' AGL-4000'
BELOW 1700
V212N-V245
V212
R-3801B SFC-7000'
R-3801C 7000-14000'
AEX
Red River
Summerville
Woodworth
15 NM
V114N
PENETRATION AREA 5000'-10000'
R-3804A
Marksville Muni
Cocodrie Lake
Chenneyville (Pvt)
V114
Bunkie Muni
HOTROCK MOA
R-3806 EXCLUDES THE AIRSPACE BELOW 1500 AGL
R-3806 SAR TRAINING AREA 500' AGL-7000'
LEGEND
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
1200-7000 GCA CORRIDOR
CONCENTRATED JET TRAFFIC AREA
1700-7000
3000-7000
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL


25 NM
V81W
V81
Lake Meredith
V12N-304
V12-280
V12N
V12S-140N
Panhandle
60
87
287
5000
6000
7000
215°
P-47
V140
AMA
AMARILLO
INTL
V12
40
V12S-280-280S
V12S-280
V280S
Tradewind
LOM
AM
035°
Canyon
Buffalo Lake
V81E
V114S
V114
V81
25 NM

VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AMARILLO APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THE CONCENTRATED JET TRAFFIC AREA

AIRCRAFT APPROACHING AMARILLO FROM THE EAST CONTACT APPROACH CONTROL ON 124.8 MHz; FROM THE WEST ON 119.5 MHz

AIRCRAFT DEPARTING SOUTH FROM TRADEWIND AIRPORT-CONTACT AMARILLO DEPARTURE CONTROL 119.5 MHz

EXTREME CAUTION RECOMMENDED IN AREA SOUTH AND EAST OF TRADEWIND AIRPORT DUE TO PROXIMITY OF LOCALIZER FINAL APPROACH COURSE AND DEPARTURE ROUTE FROM AMARILLO INTERNATIONAL AIRPORT

LEGEND

▭▭▭	RADAR VECTOR PATTERN CONCENTRATED JET TRAFFIC AREA
➡	TURBO JET ARRIVAL ROUTE

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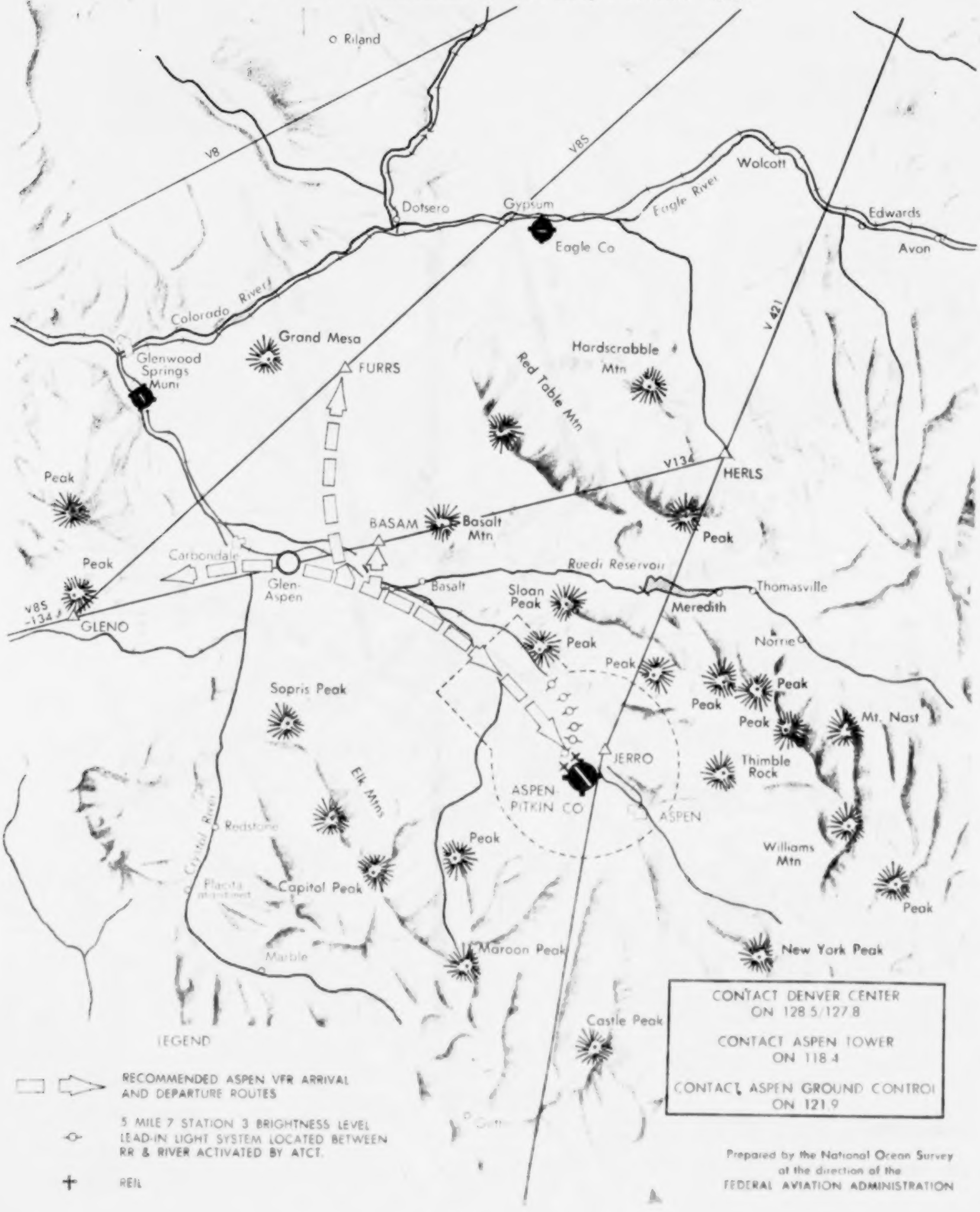
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ASPEN, COLORADO, ASPEN, PITKIN CO.


Riland
V8
V85
Dotsero
Gypsum
Eagle Co
Wolcott
Eagle River
Edwards
Avon
V 421
Colorado River
Glenwood Springs Muni
Grand Mesa
FURRS
Hardscrabble Mtn
Red Table Mtn
V134
HERLS
Peak
BASAM
Basalt Mtn
Peak
Carbondale
Glen-Aspen
Basalt
Ruedi Reservoir
Thomasville
V85 -134
GLENO
Sloan Peak
Meredith
Norrie
Peak
Peak
Sopris Peak
Peak
Peak
Peak
Mt. Nast
Thimble Rock
JERRO
ASPEN-PITKIN CO
ASPEN
Elk Mtns
Redstone
Crystal River
Peak
Williams Mtn
Peak
Placita
Capitol Peak
Marble
Maroon Peak
New York Peak
Castle Peak

CONTACT DENVER CENTER
ON 128.5/127.8

CONTACT ASPEN TOWER
ON 118.4

CONTACT ASPEN GROUND CONTROL
ON 121.9

LEGEND

▭ ⇨ RECOMMENDED ASPEN VFR ARRIVAL AND DEPARTURE ROUTES

-○- 5 MILE 7 STATION 3 BRIGHTNESS LEVEL LEAD-IN LIGHT SYSTEM LOCATED BETWEEN RR & RIVER ACTIVATED BY ATCT.

+ REIL

Prepared by the National Ocean Survey
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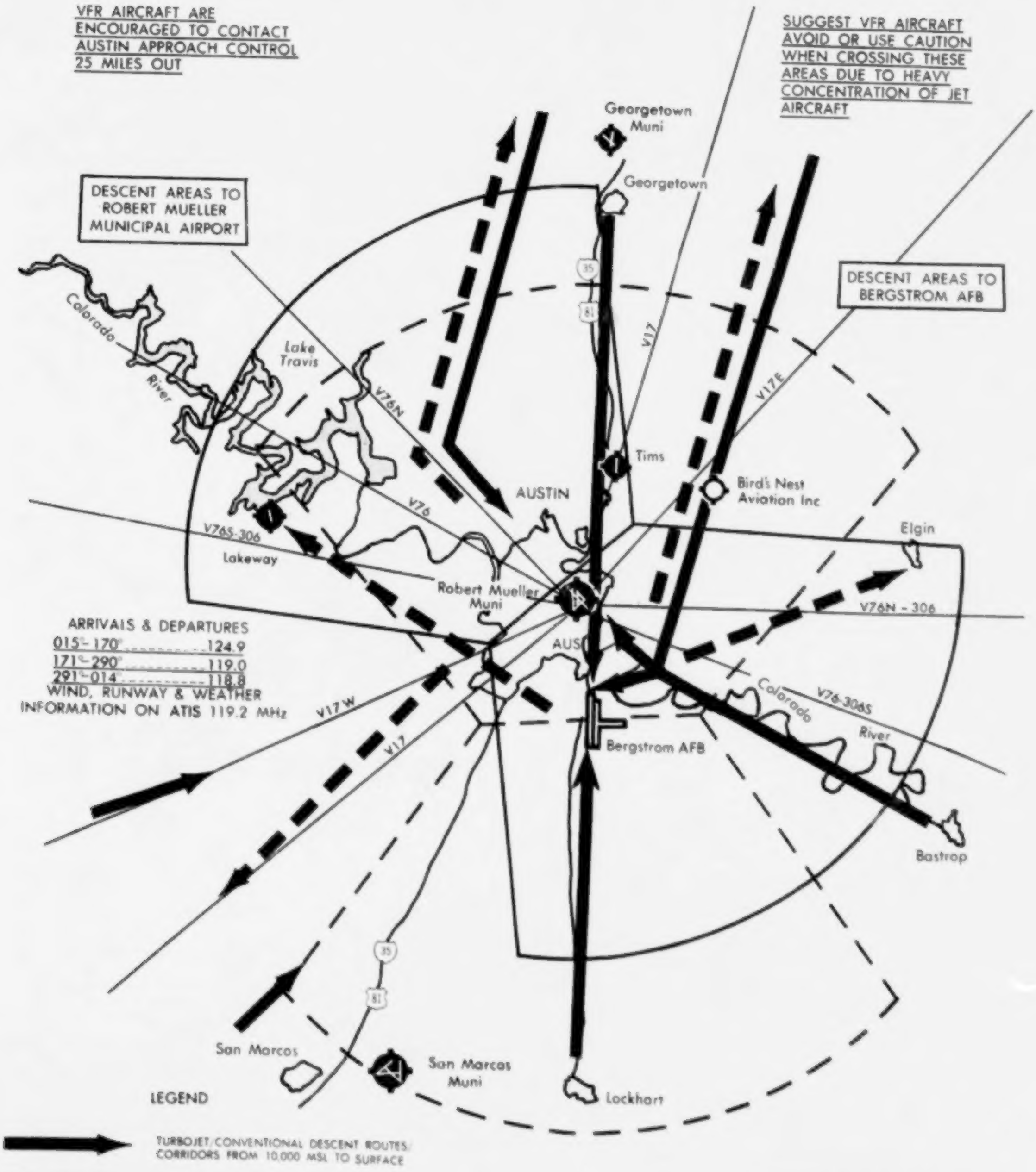
19 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AUSTIN, TEXAS



VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AUSTIN APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THESE AREAS DUE TO HEAVY CONCENTRATION OF JET AIRCRAFT

DESCENT AREAS TO ROBERT MUELLER MUNICIPAL AIRPORT

DESCENT AREAS TO BERGSTROM AFB

ARRIVALS & DEPARTURES

015°-170°	124.9
171°-290°	119.0
291°-014°	118.8

WIND, RUNWAY & WEATHER INFORMATION ON ATIS 119.2 MHz

LEGEND

TURBOJET/CONVENTIONAL DESCENT ROUTES/CORRIDORS FROM 10,000 MSL TO SURFACE

TURBOJET/CONVENTIONAL CLIMB ROUTES/CORRIDORS FROM SURFACE TO 10,000 MSL

Georgetown Muni
Georgetown
35
81
V17
V17E
Lake Travis
Colorado River
V76N
V76
V76S-306
Lakeway
Tims
AUSTIN
Bird's Nest Aviation Inc
Elgin
Robert Mueller Muni
AUS
V76N - 306
V76-306S
Colorado River
Bergstrom AFB
V17W
V17
Bastrop
35
81
San Marcos
San Marcos Muni
Lockhart

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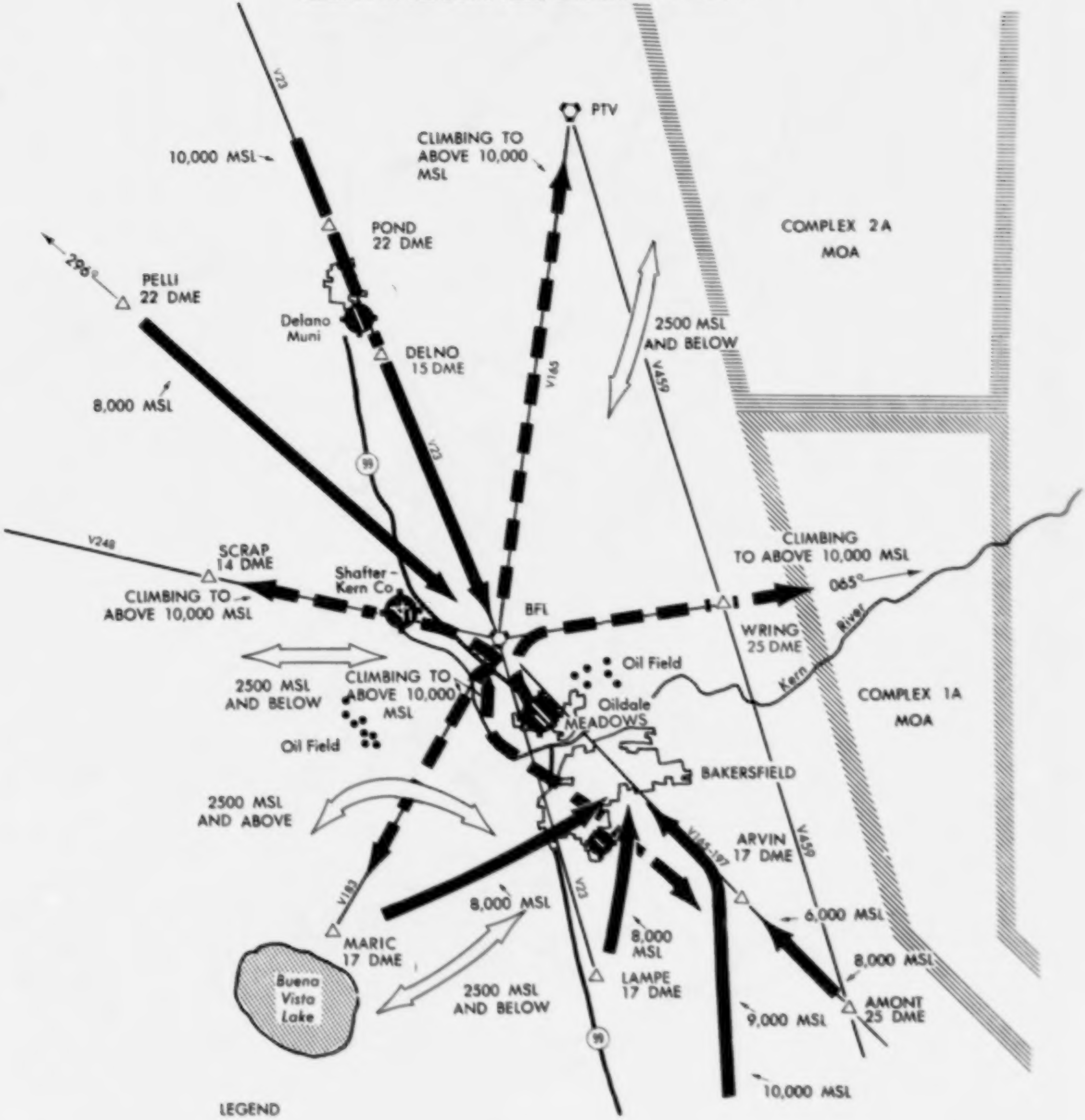
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BAKERSFIELD, CALIFORNIA

THIS CHART SHOWS THE ARRIVAL AND DEPARTURE ROUTES MOST FREQUENTLY USED BY HIGH PERFORMANCE AIRCRAFT AT MEADOWS FIELD, BAKERSFIELD, CALIFORNIA.


V23
PTV
CLIMBING TO ABOVE 10,000 MSL
10,000 MSL
COMPLEX 2A MOA
POND 22 DME
296°
PELLI 22 DME
Delano Muni
2500 MSL AND BELOW
DELNO 15 DME
V165
V459
8,000 MSL
99
V23
V248
SCRAP 14 DME
Shafter-Kern Co
CLIMBING TO ABOVE 10,000 MSL
CLIMBING TO ABOVE 10,000 MSL
065°
BFL
WRING 25 DME
Kern River
Oil Field
2500 MSL AND BELOW
CLIMBING TO ABOVE 10,000 MSL
Oildale
MEADOWS
COMPLEX 1A MOA
Oil Field
BAKERSFIELD
2500 MSL AND ABOVE
ARVIN 17 DME
V165-197
V459
V183
8,000 MSL
V23
6,000 MSL
MARIC 17 DME
8,000 MSL
8,000 MSL
Buena Vista Lake
2500 MSL AND BELOW
LAMPE 17 DME
AMONT 25 DME
9,000 MSL
99
10,000 MSL

LEGEND

➡ MAJOR JET ARRIVAL ROUTES

⇢ MAJOR JET DEPARTURE ROUTES

⇔ SUGGESTED VFR ROUTES

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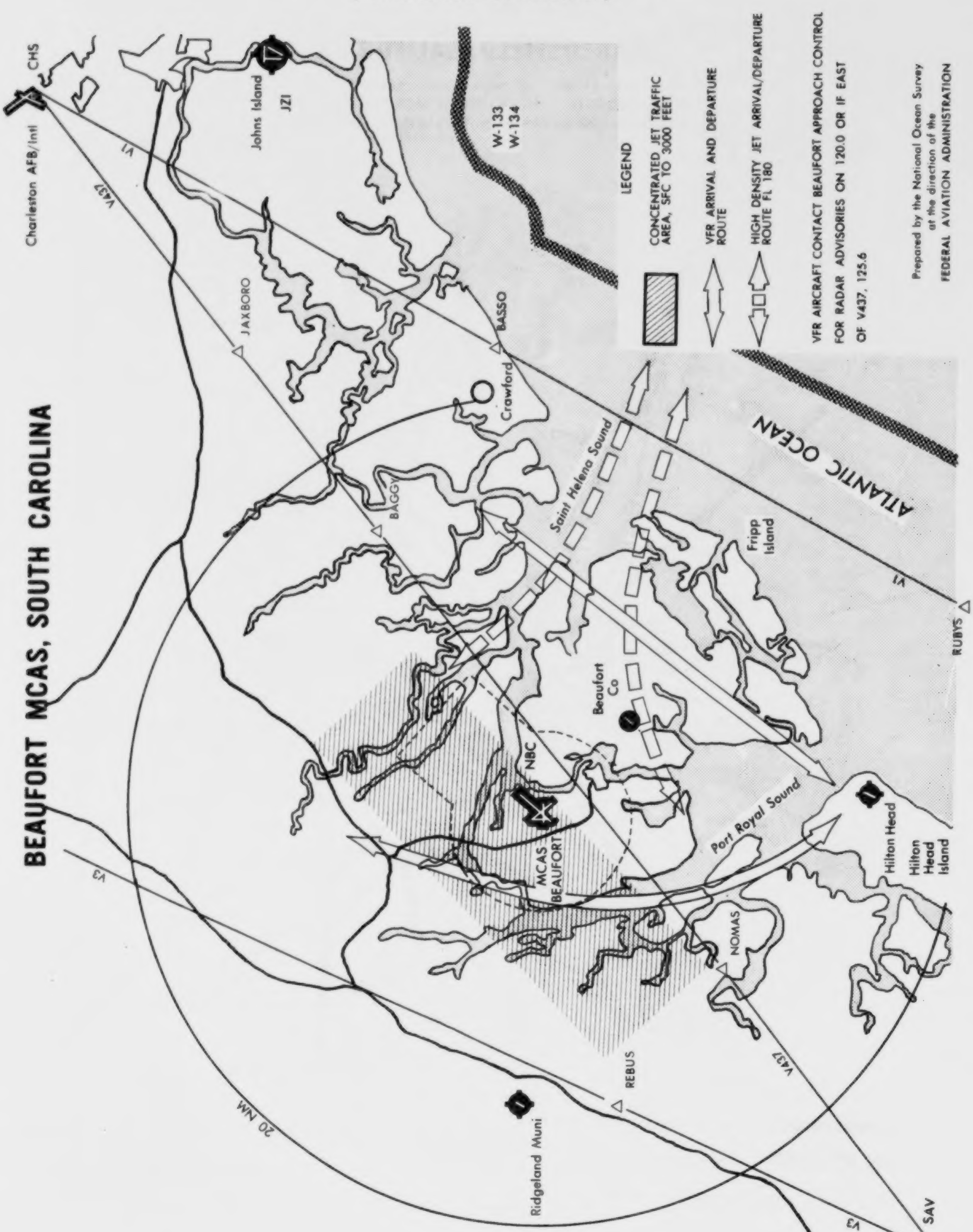
9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BEAUFORT MCAS, SOUTH CAROLINA


Charleston AFB/Intl
CHS
Johns Island
JZI
W-133
W-134
V1
V437
JAXBORO
BASSO
Crawford
BAGGY
Saint Helena Sound
ATLANTIC OCEAN
Fripp Island
RUBYS
Beaufort Co
NBC
MCAS BEAUFORT
Port Royal Sound
Hilton Head
Hilton Head Island
NOMAS
REBUS
V3
Ridgeland Muni
20 NM
SAV

LEGEND

▨ CONCENTRATED JET TRAFFIC AREA, SFC TO 3000 FEET

⇕ VFR ARRIVAL AND DEPARTURE ROUTE

⇕ HIGH DENSITY JET ARRIVAL/DEPARTURE ROUTE FL 180

VFR AIRCRAFT CONTACT BEAUFORT APPROACH CONTROL FOR RADAR ADVISORIES ON 120.0 OR IF EAST OF V437, 125.6

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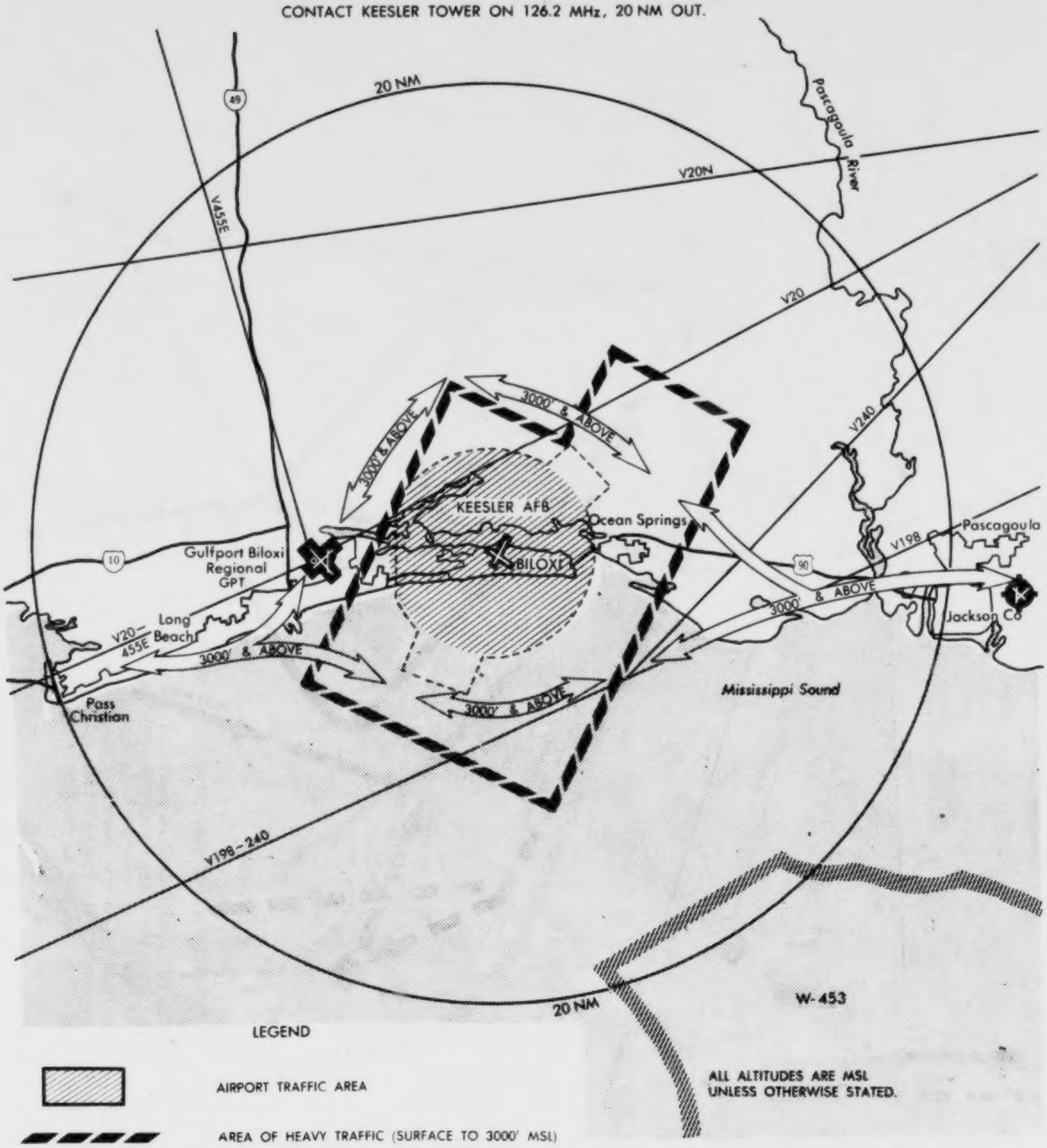
15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BILOXI, KEESLER AFB, MISS.

IT IS RECOMMENDED THAT VFR TRAFFIC STAY AT OR ABOVE 3000 FEET, MSL, BECAUSE OF THE HIGH VOLUME OF TRAINING OPERATIONS IN THE AREA. FOR TRAFFIC ADVISORY SERVICE, CONTACT KEESLER TOWER ON 126.2 MHz, 20 NM OUT.


20 NM
49
V455E
Pascagoula River
V20N
V20
3000' & ABOVE
3000' & ABOVE
V240
KEESLER AFB
Ocean Springs
Pascagoula
V198
10
Gulfport Biloxi
Regional
GPT
BILOXI
90
3000' & ABOVE
Long Beach
V20—455E
3000' & ABOVE
Jackson Co
Pass Christian
3000' & ABOVE
Mississippi Sound
V198—240
W-453
20 NM
ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.

LEGEND

▨ AIRPORT TRAFFIC AREA

▬ ▬ ▬ ▬ AREA OF HEAVY TRAFFIC (SURFACE TO 3000' MSL)

⟷ 3000' & ABOVE RECOMMENDED VFR ROUTING

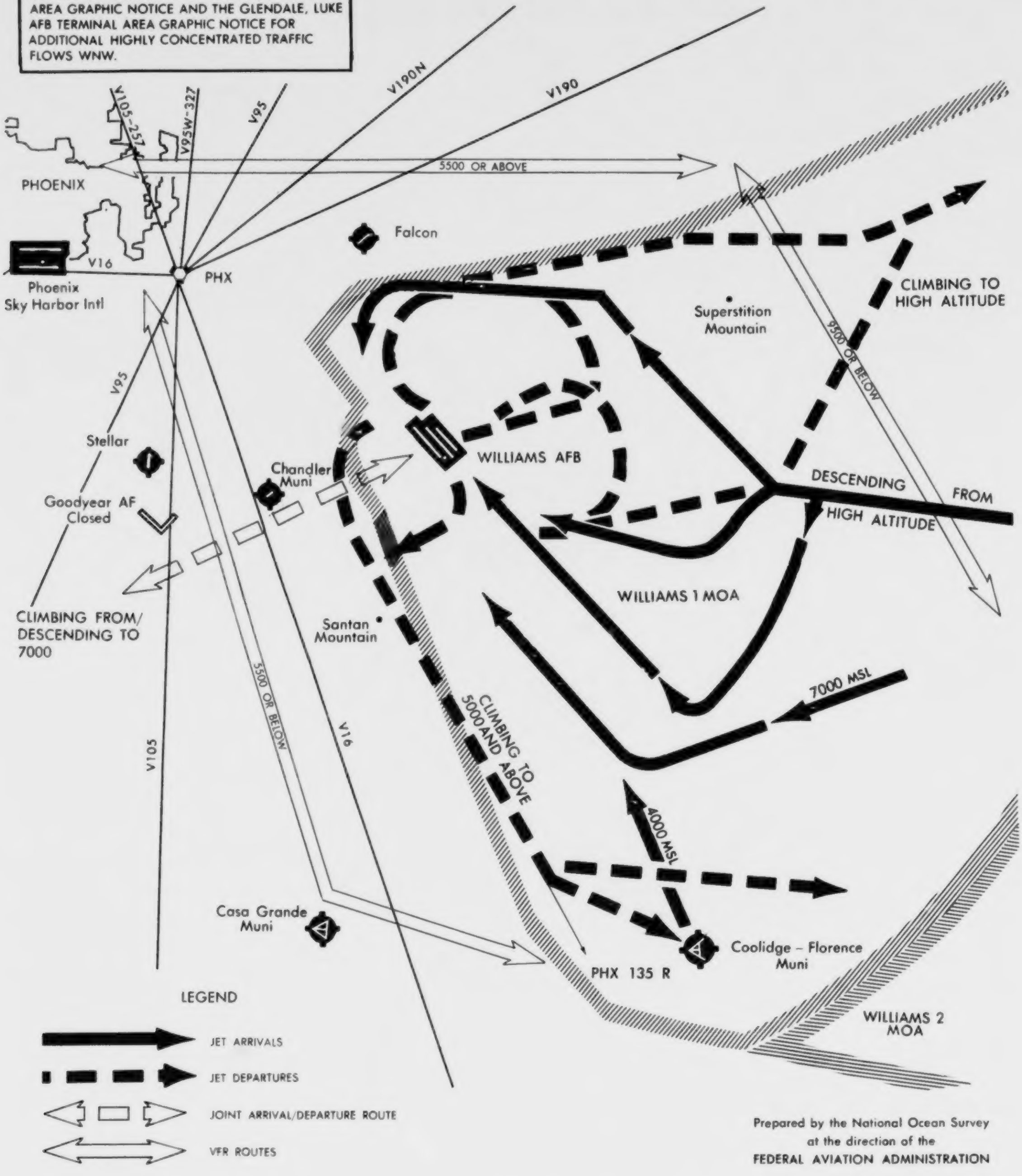
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

CHANDLER, WILLIAMS AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE WILLIAMS AIR FORCE BASE -PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 120.4.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW.


V105-257
V95W-327
V95
V190N
V190
5500 OR ABOVE
PHOENIX
Falcon
V16
PHX
Phoenix
Sky Harbor Intl
Superstition
Mountain
CLIMBING TO
HIGH ALTITUDE
9500 OR BELOW
V95
Stellar
Chandler
Muni
WILLIAMS AFB
DESCENDING FROM
HIGH ALTITUDE
Goodyear AF
Closed
WILLIAMS 1 MOA
CLIMBING FROM/
DESCENDING TO
7000
Santan
Mountain
7000 MSL
5500 OR BELOW
V16
V105
CLIMBING TO
5000AND ABOVE
4000 MSL
Casa Grande
Muni
Coolidge – Florence
Muni
PHX 135 R
WILLIAMS 2
MOA
LEGEND
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

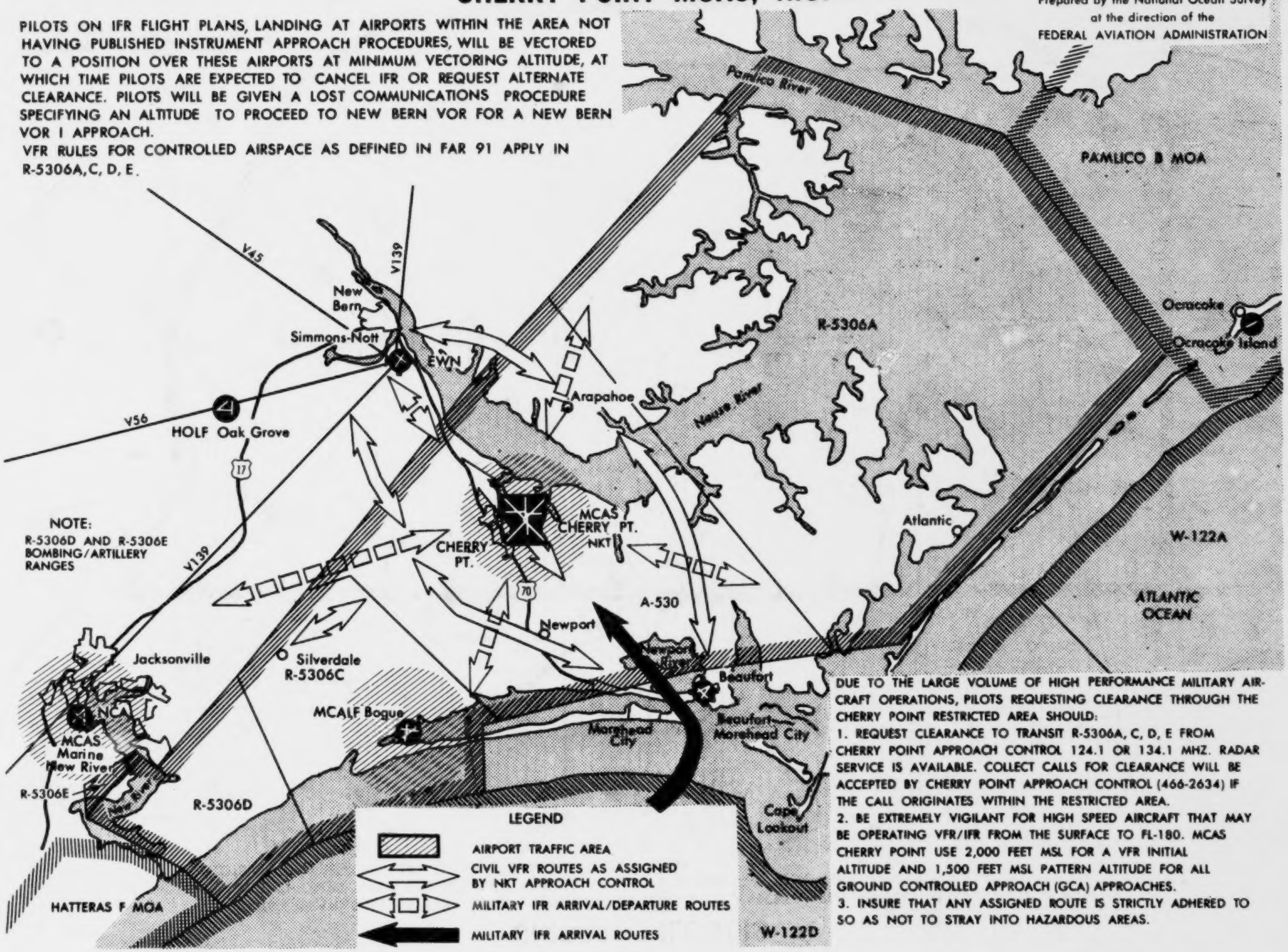
15 MAY 1980

CHERRY POINT MCAS, N.C.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

PILOTS ON IFR FLIGHT PLANS, LANDING AT AIRPORTS WITHIN THE AREA NOT HAVING PUBLISHED INSTRUMENT APPROACH PROCEDURES, WILL BE VECTORED TO A POSITION OVER THESE AIRPORTS AT MINIMUM VECTORING ALTITUDE, AT WHICH TIME PILOTS ARE EXPECTED TO CANCEL IFR OR REQUEST ALTERNATE CLEARANCE. PILOTS WILL BE GIVEN A LOST COMMUNICATIONS PROCEDURE SPECIFYING AN ALTITUDE TO PROCEED TO NEW BERN VOR FOR A NEW BERN VOR I APPROACH.

VFR RULES FOR CONTROLLED AIRSPACE AS DEFINED IN FAR 91 APPLY IN R-5306A, C, D, E.


Pamlico River
PAMLICO B MOA
Ocracoke
Ocracoke Island
R-5306A
Neuse River
V45
V139
New Bern
Simmons-Nott
EWN
Arapahoe
V56
HOLF Oak Grove
17
MCAS CHERRY PT.
NKT
CHERRY PT.
70
Atlantic
W-122A
ATLANTIC OCEAN
A-530
Newport
Newport River
Beaufort
Beaufort-Morehead City
Morehead City
Cape Lookout
Jacksonville
Silverdale
R-5306C
MCALF Bogue
MCAS Marine New River
R-5306E
R-5306D
HATTERAS F MOA
W-122D
LEGEND
AIRPORT TRAFFIC AREA
CIVIL VFR ROUTES AS ASSIGNED BY NKT APPROACH CONTROL
MILITARY IFR ARRIVAL/DEPARTURE ROUTES
MILITARY IFR ARRIVAL ROUTES

NOTE:
R-5306D AND R-5306E BOMBING/ARTILLERY RANGES

DUE TO THE LARGE VOLUME OF HIGH PERFORMANCE MILITARY AIRCRAFT OPERATIONS, PILOTS REQUESTING CLEARANCE THROUGH THE CHERRY POINT RESTRICTED AREA SHOULD:

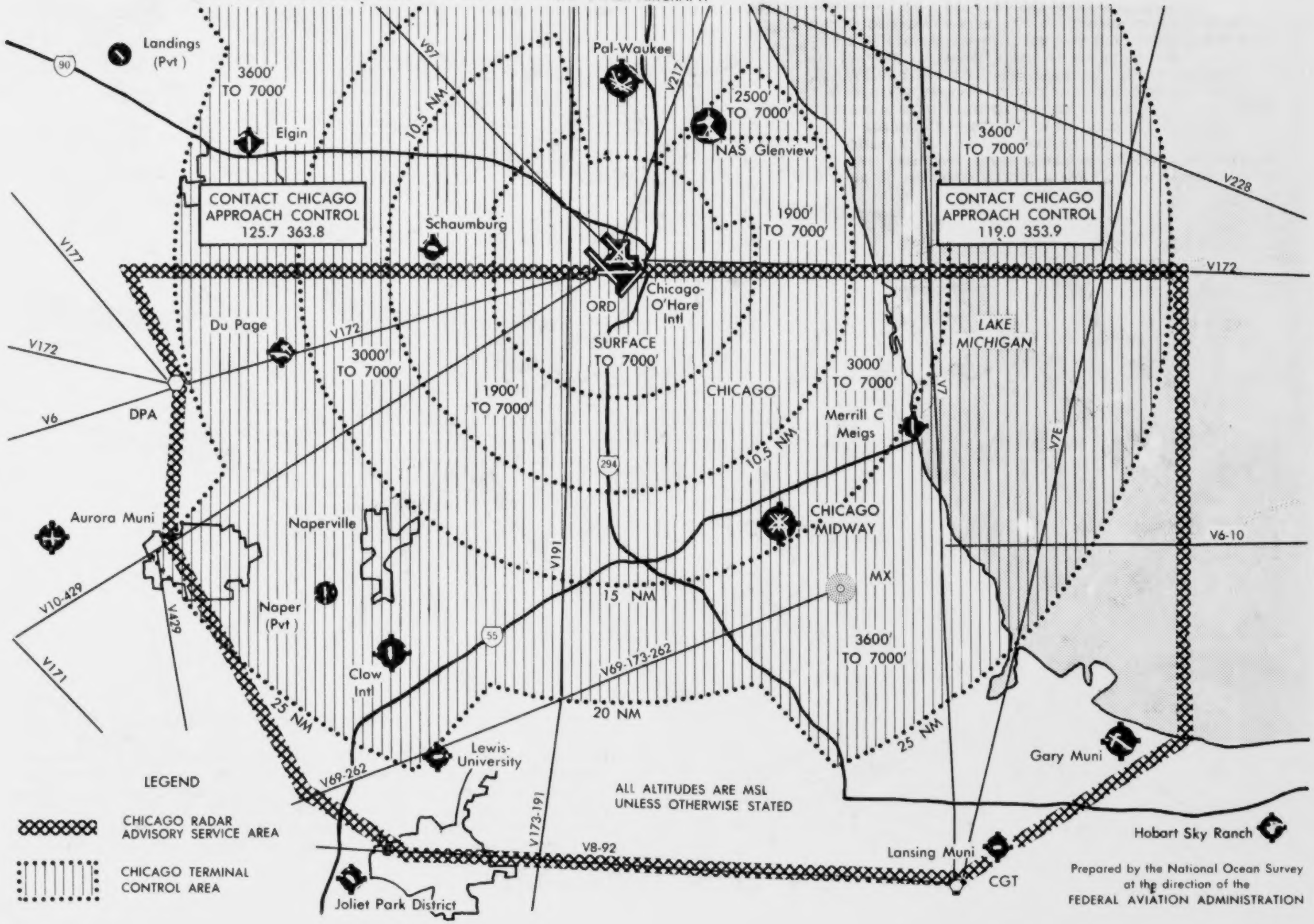
1. REQUEST CLEARANCE TO TRANSIT R-5306A, C, D, E FROM CHERRY POINT APPROACH CONTROL 124.1 OR 134.1 MHZ. RADAR SERVICE IS AVAILABLE. COLLECT CALLS FOR CLEARANCE WILL BE ACCEPTED BY CHERRY POINT APPROACH CONTROL (466-2634) IF THE CALL ORIGINATES WITHIN THE RESTRICTED AREA.
2. BE EXTREMELY VIGILANT FOR HIGH SPEED AIRCRAFT THAT MAY BE OPERATING VFR/IFR FROM THE SURFACE TO FL-180. MCAS CHERRY POINT USE 2,000 FEET MSL FOR A VFR INITIAL ALTITUDE AND 1,500 FEET MSL PATTERN ALTITUDE FOR ALL GROUND CONTROLLED APPROACH (GCA) APPROACHES.
3. INSURE THAT ANY ASSIGNED ROUTE IS STRICTLY ADHERED TO SO AS NOT TO STRAY INTO HAZARDOUS AREAS.

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

CHICAGO , ILLINOIS

VFR PILOTS OPERATING ABOVE, BENEATH OR OUTSIDE OF THE TCA, IN THE HATCHED AREA DEPICTED, ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR ADVISORY SERVICE ON 126.8 MHz. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.

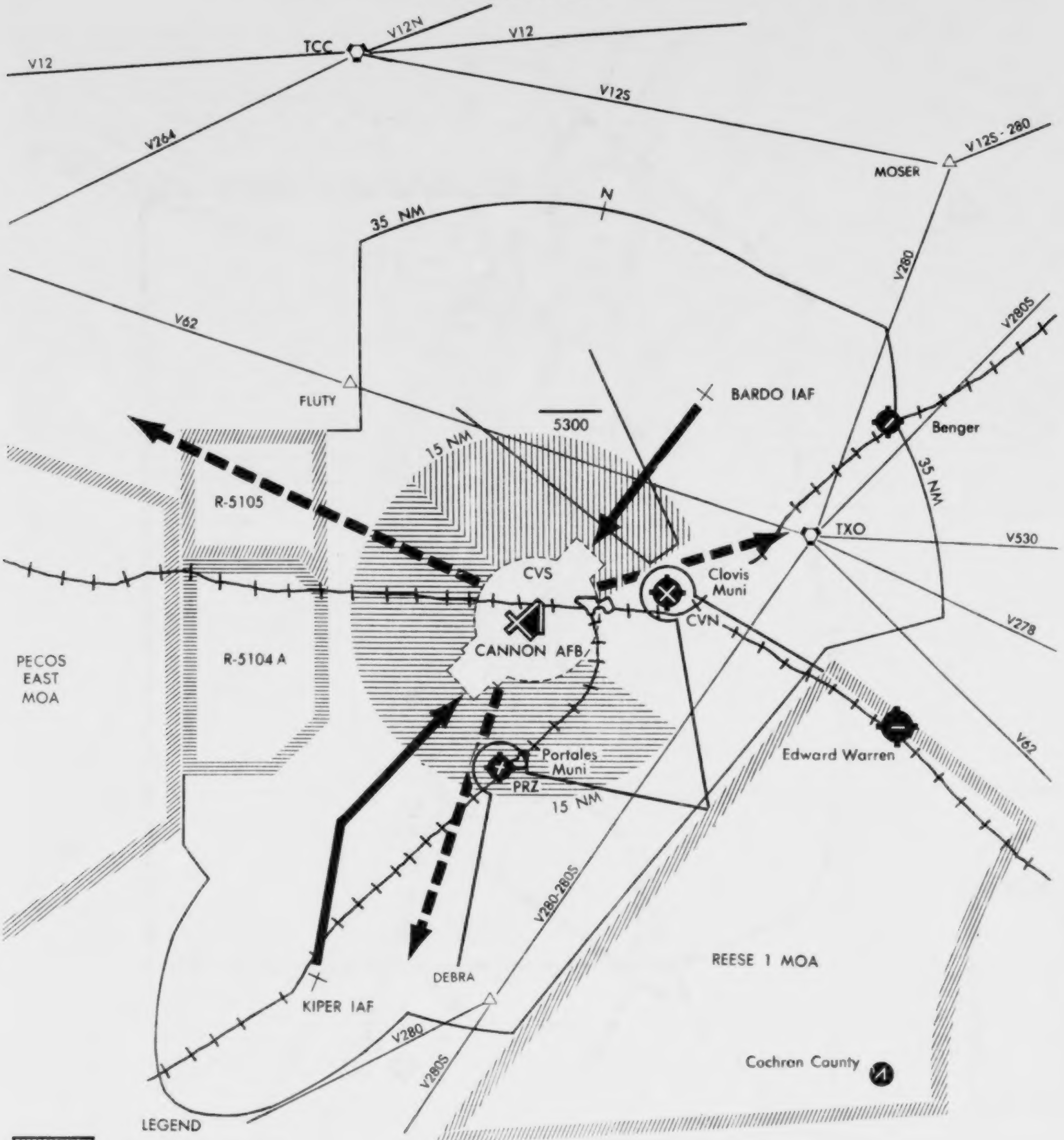

Landings (Pvt)
90
3600' TO 7000'
Elgin
CONTACT CHICAGO APPROACH CONTROL 125.7 363.8
V177
V172
V6
DPA
Du Page
V172
3000' TO 7000'
10.5 NM
V97
Schaumburg
1900' TO 7000'
Pal-Waukee
V217
2500' TO 7000'
NAS Glenview
1900' TO 7000'
ORD
Chicago-O'Hare Intl
SURFACE TO 7000'
CHICAGO
294
3000' TO 7000'
Merrill C Meigs
10.5 NM
3600' TO 7000'
CONTACT CHICAGO APPROACH CONTROL 119.0 353.9
V228
V172
LAKE MICHIGAN
V7
V7E
V6-10
CHICAGO MIDWAY
MX
3600' TO 7000'
15 NM
V191
Aurora Muni
Naperville
V10-429
V429
V171
Naper (Pvt)
Clow Intl
55
V69-173-262
20 NM
25 NM
25 NM
V69-262
Lewis-University
V173-191
V8-92
Joliet Park District
Gary Muni
Hobart Sky Ranch
Lansing Muni
CGT
LEGEND
CHICAGO RADAR ADVISORY SERVICE AREA
CHICAGO TERMINAL CONTROL AREA

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CLOVIS, NEW MEXICO
CANNON AFB


TCC
V12N
V12
V12
V12S
V264
MOSER
V12S-280
35 NM
N
V280
V62
V280S
FLUTY
BARDO IAF
5300
15 NM
Benger
35 NM
R-5105
TXO
V530
CVS
Clovis
Muni
CVN
V278
PECOS
EAST
MOA
R-5104 A
CANNON AFB
Edward Warren
V62
Portales
Muni
PRZ
15 NM
V280-280S
REESE 1 MOA
DEBRA
KIPER IAF
V280
V280S
Cochran County

LEGEND

▥ 5800 MSL TO 6300 MSL

▤ 5800 MSL TO 7000 MSL

➡ ARRIVAL ROUTE

⇢ DEPARTURE ROUTE

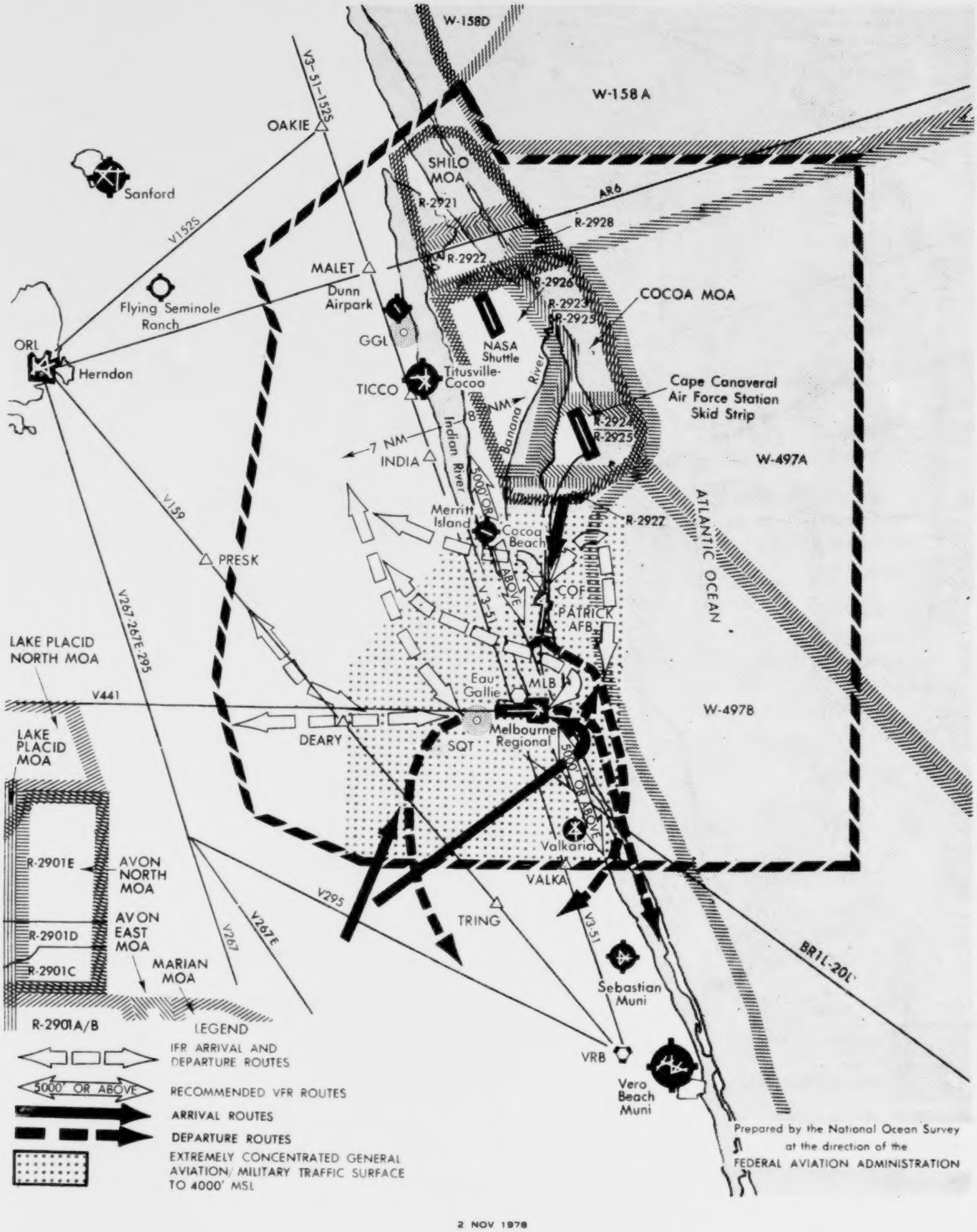
RECOMMENDED VFR CORRIDORS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

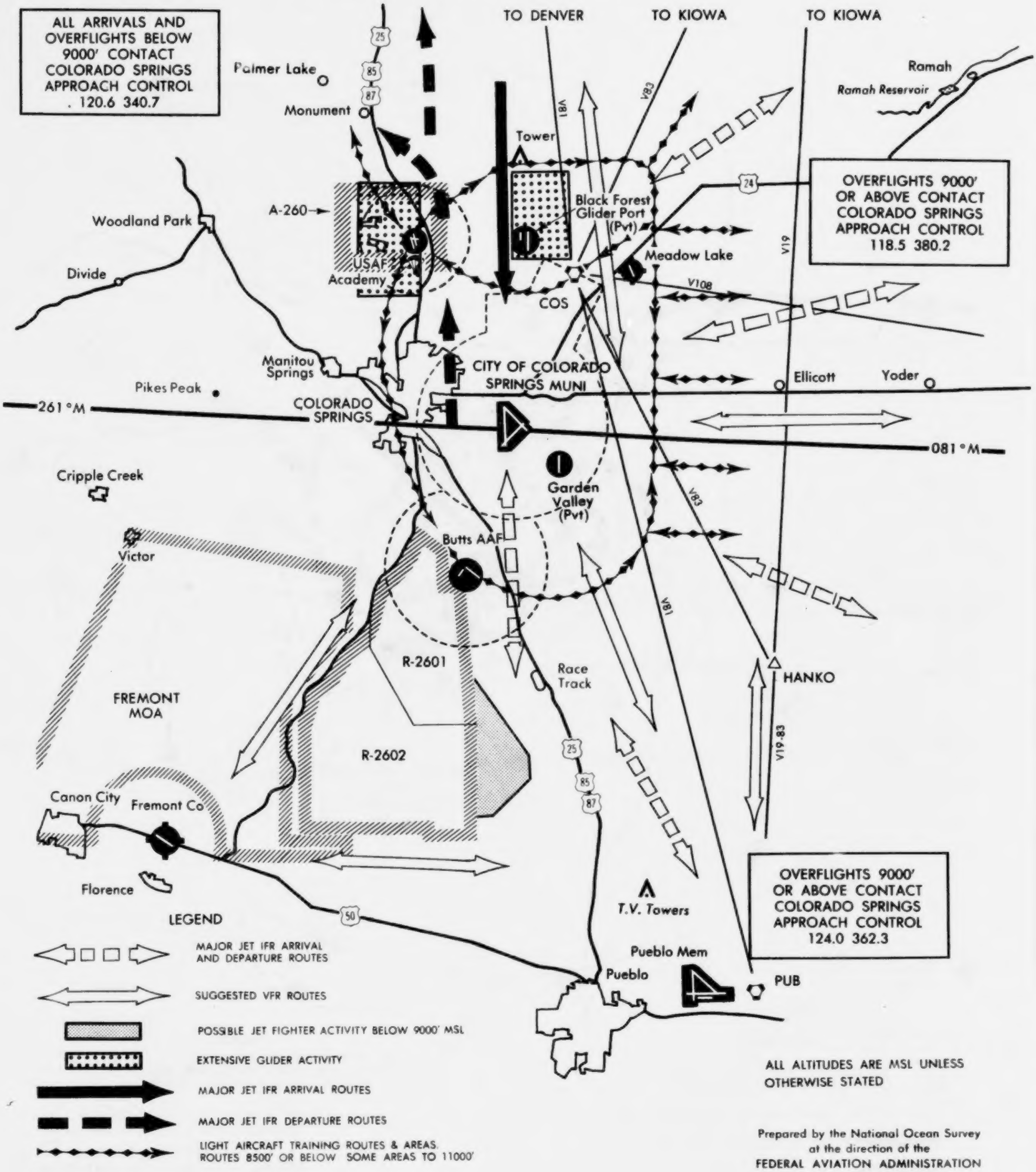
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, PATRICK AFB, FLA.


W-158D
W-158 A
V3-51-152S
OAKIE
SHILO MOA
R-2921
AR6
R-2928
Sanford
V152S
MALET
R-2922
R-2926
R-2923
R-2925
COCOA MOA
Dunn Airpark
Flying Seminole Ranch
GGL
NASA Shuttle
ORL
Herndon
Titusville-Cocoa
TICCO
Banana River
Cape Canaveral Air Force Station Skid Strip
8 NM
R-2924
R-2925
7 NM
Indian River
INDIA
W-497A
5000' OR ABOVE
Merritt Island
Cocoa Beach
R-2927
ATLANTIC OCEAN
V159
PRESK
V3-51
COF
PATRICK AFB
V267-267E-295
LAKE PLACID NORTH MOA
Eau Gallie
MLB
V441
W-497B
Melbourne Regional
SQT
DEARY
LAKE PLACID MOA
5000' OR ABOVE
Valkaria
R-2901E
AVON NORTH MOA
VALKA
V295
TRING
AVON EAST MOA
R-2901D
V267
V267E
V3-51
BR11-20L
R-2901C
MARIAN MOA
Sebastian Muni
R-2901A/B
LEGEND
IFR ARRIVAL AND DEPARTURE ROUTES
5000' OR ABOVE
RECOMMENDED VFR ROUTES
ARRIVAL ROUTES
DEPARTURE ROUTES
EXTREMELY CONCENTRATED GENERAL AVIATION/ MILITARY TRAFFIC SURFACE TO 4000' MSL
VRB
Vero Beach Muni
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO

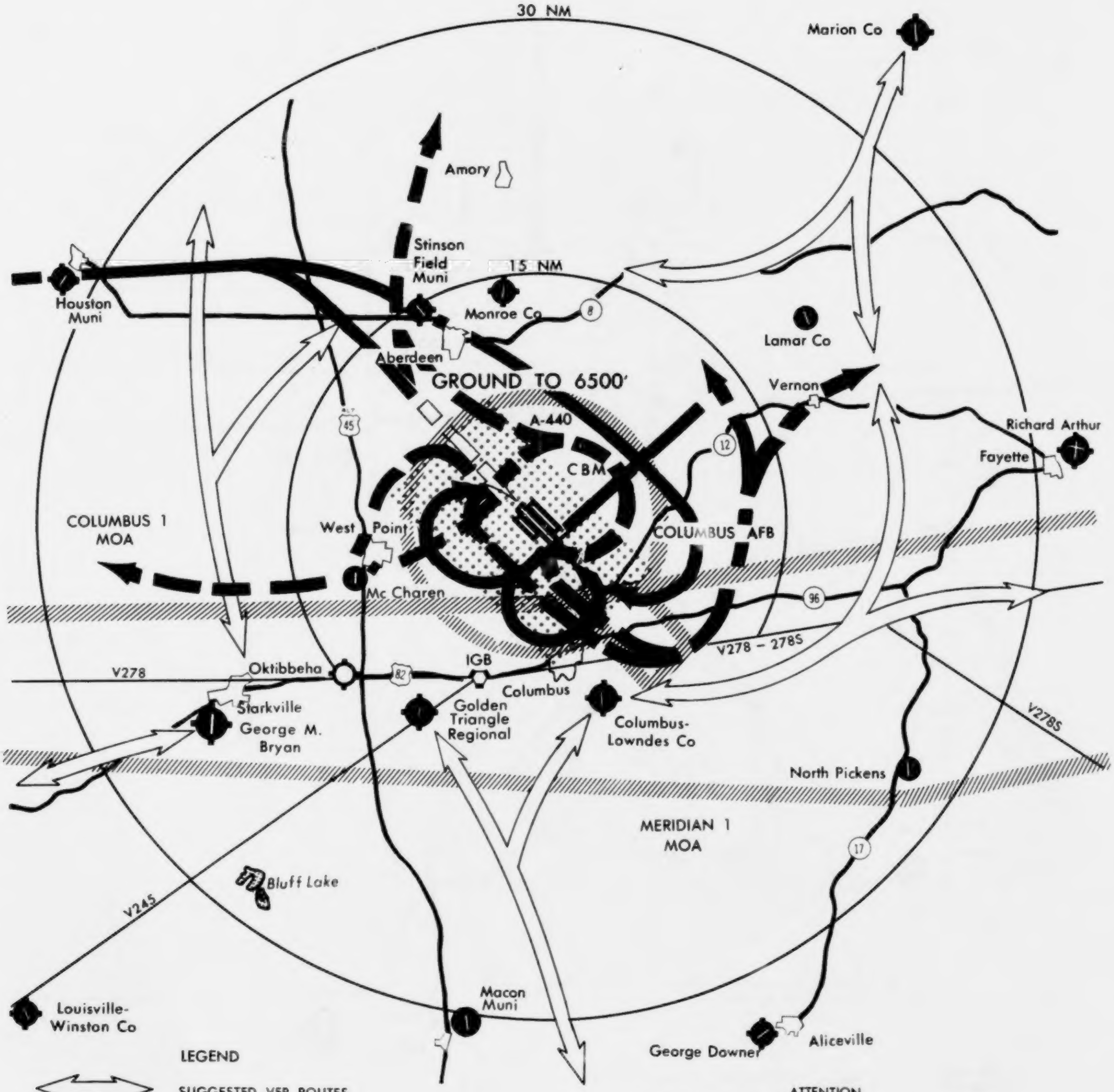

ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL 120.6 340.7
TO DENVER
TO KIOWA
TO KIOWA
Ramah
Ramah Reservoir
Palmer Lake
Monument
25
85
87
V81
V83
Tower
A-260
Black Forest Glider Port (Pvt)
USAF Academy
Meadow Lake
COS
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 118.5 380.2
24
V19
V108
Woodland Park
Divide
Manitou Springs
Pikes Peak
CITY OF COLORADO SPRINGS MUNI
Ellicott
Yoder
261°M
COLORADO SPRINGS
081°M
Cripple Creek
Garden Valley (Pvt)
V83
Victor
Butts AAF
V81
R-2601
Race Track
HANKO
FREMONT MOA
R-2602
V19-83
25
85
87
Canon City
Fremont Co
Florence
50
T.V. Towers
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 124.0 362.3
Pueblo Mem
Pueblo
PUB
LEGEND
MAJOR JET IFR ARRIVAL AND DEPARTURE ROUTES
SUGGESTED VFR ROUTES
POSSIBLE JET FIGHTER ACTIVITY BELOW 9000′ MSL
EXTENSIVE GLIDER ACTIVITY
MAJOR JET IFR ARRIVAL ROUTES
MAJOR JET IFR DEPARTURE ROUTES
LIGHT AIRCRAFT TRAINING ROUTES & AREAS. ROUTES 8500′ OR BELOW SOME AREAS TO 11000′

ALL ALTITUDES ARE MSL UNLESS
OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI


30 NM
Marion Co
Amory
Stinson
Field
Muni
15 NM
Monroe Co
Houston
Muni
Aberdeen
Lamar Co
GROUND TO 6500'
Vernon
A-440
CBM
Richard Arthur
Fayette
COLUMBUS 1
MOA
West Point
COLUMBUS AFB
Mc Charen
96
V278 – 278S
V278
Oktibbeha
82
IGB
Columbus
Starkville
George M.
Bryan
Golden
Triangle
Regional
Columbus-
Lowndes Co
V278S
North Pickens
MERIDIAN 1
MOA
Bluff Lake
V245
17
45
12
8
Louisville-
Winston Co
Macon
Muni
George Downer
Aliceville

LEGEND

⇔ SUGGESTED VFR ROUTES

▨ SUGGEST AVOID THESE AREAS DUE TO CONCENTRATED JET TRAFFIC

▭ ⇨ JOINT ARRIVAL / DEPARTURE ROUTES

➡ JET TRAFFIC ARRIVAL ROUTES

▬ ➡ JET TRAFFIC DEPARTURE ROUTES

ATTENTION
RADAR ADVISORIES AVAILABLE WITHIN 30 NM OF COLUMBUS AFB. CONTACT COLUMBUS APPROACH CONTROL ON; 294.5, 363.8, 120.4 OR 134.1

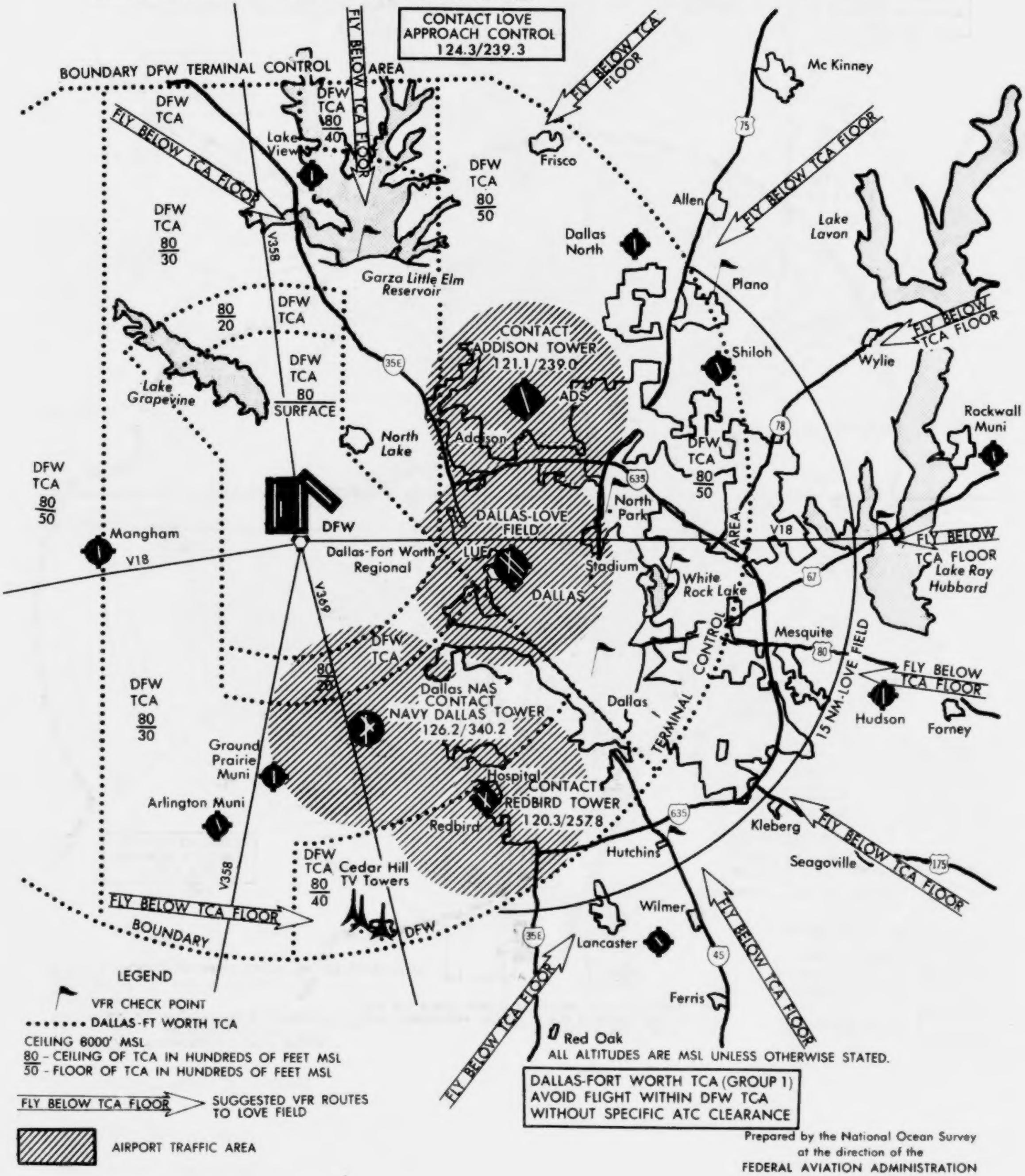
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DALLAS LOVE FIELD, TEXAS

LOVE TOWER WILL PROVIDE RADAR SERVICE WITHIN 15 MILES OF LOVE FIELD EXCLUDING THE DFW TCA, ADDISON, REDBIRD, AND NAS DALLAS AIRPORT TRAFFIC AREAS. REGIONAL APPROACH CONTROL WILL PROVIDE RADAR SERVICE ELSEWHERE. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUED VIGILANCE TO SEE AND AVOID OTHER TRAFFIC.


CONTACT LOVE APPROACH CONTROL 124.3/239.3
BOUNDARY DFW TERMINAL CONTROL AREA
FLY BELOW TCA FLOOR
DFW TCA
DFW TCA 80/40
Lake View
DFW TCA 80/50
DFW TCA 80/30
Frisco
Mc Kinney
Allen
Dallas North
Lake Lavon
Plano
Garza Little Elm Reservoir
V358
DFW TCA 80/20
DFW TCA 80 SURFACE
Lake Grapevine
CONTACT ADDISON TOWER 121.1/239.0
ADS
Addison
Shiloh
Wylie
Rockwall Muni
North Lake
DFW TCA 80/50
North Park
DFW
DALLAS-LOVE FIELD
LUE
Mangham
V18
Dallas-Fort Worth Regional
V369
Stadium
White Rock Lake
DALLAS
FLY BELOW TCA FLOOR
Lake Ray Hubbard
Mesquite
DFW TCA 80/20
TERMINAL CONTROL AREA
15 NM-LOVE FIELD
Dallas NAS CONTACT NAVY DALLAS TOWER 126.2/340.2
Dallas
Hudson
Forney
Ground Prairie Muni
Hospital
CONTACT REDBIRD TOWER 120.3/257.8
Arlington Muni
Redbird
Kleberg
Hutchins
Seagoville
DFW TCA 80/40
Cedar Hill TV Towers
Wilmer
BOUNDARY DFW
Lancaster
Ferris
Red Oak
75
35E
635
78
67
80
175
45
LEGEND
VFR CHECK POINT
DALLAS-FT WORTH TCA
CEILING 8000' MSL
80 - CEILING OF TCA IN HUNDREDS OF FEET MSL
50 - FLOOR OF TCA IN HUNDREDS OF FEET MSL
FLY BELOW TCA FLOOR - SUGGESTED VFR ROUTES TO LOVE FIELD
AIRPORT TRAFFIC AREA

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

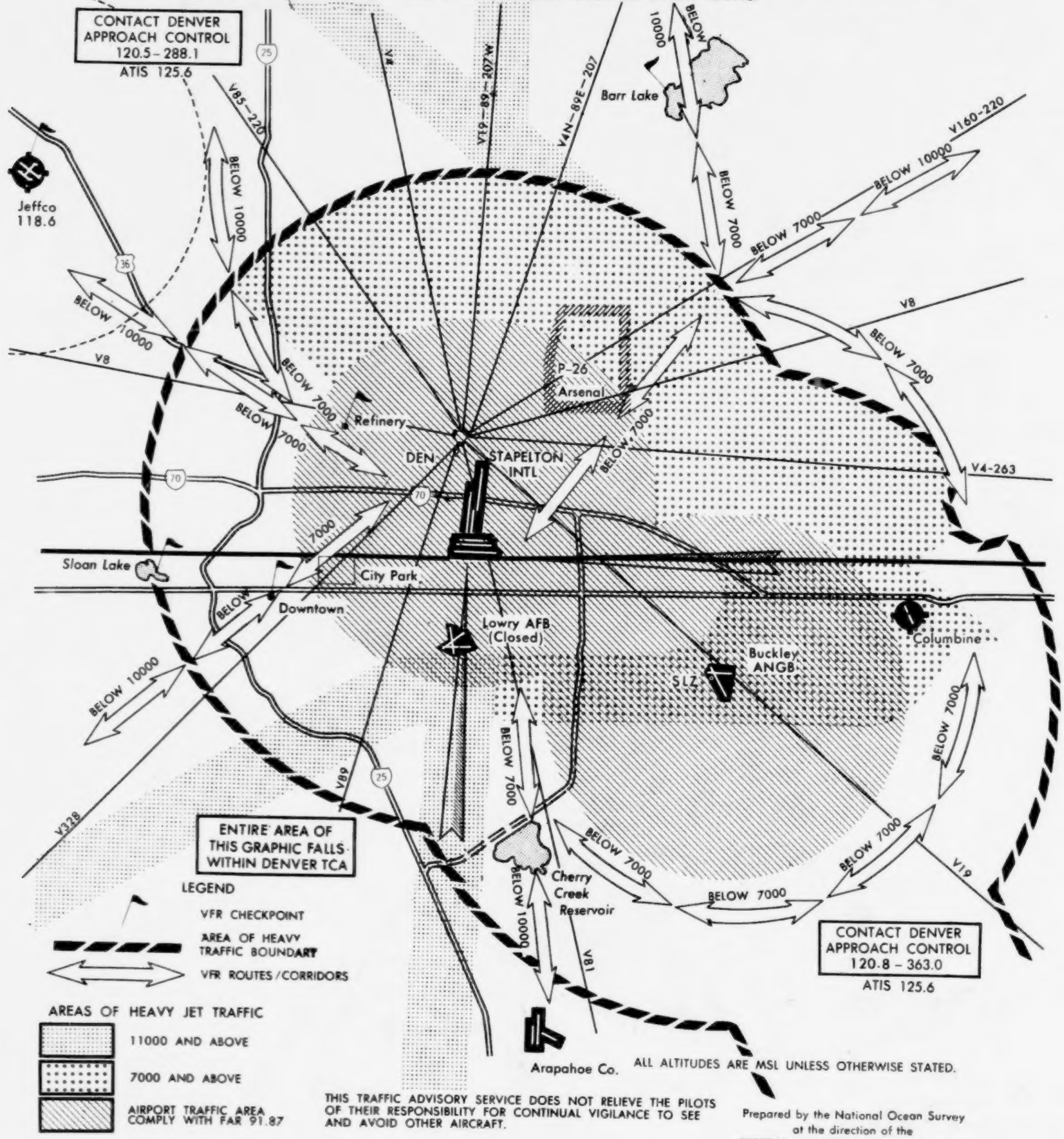
DALLAS-FORT WORTH TCA (GROUP 1)
AVOID FLIGHT WITHIN DFW TCA
WITHOUT SPECIFIC ATC CLEARANCE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DENVER, COLORADO

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DENVER TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT DENVER RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.


25
V85–220
V8
V19–89–207 W
V4N–89E–207
BELOW 10000
BELOW
Barr Lake
V160–220
BELOW 10000
BELOW 7000
BELOW 7000
Jeffco
118.6
BELOW 10000
36
BELOW 10000
V8
BELOW 7000
BELOW 7000
V8
BELOW 7000
P-26
Arsenal
Refinery
DEN
STAPELTON INTL
BELOW 7000
V4-263
70
70
7000
Sloan Lake
City Park
BELOW
Downtown
Lowry AFB
(Closed)
Columbine
Buckley ANGB
SLZ
BELOW 10000
BELOW 7000
BELOW 7000
V89
25
V328
BELOW 7000
BELOW 7000
BELOW 10000
Cherry Creek Reservoir
BELOW 7000
V19
V81
Arapahoe Co.
LEGEND
VFR CHECKPOINT
AREA OF HEAVY TRAFFIC BOUNDARY
VFR ROUTES/CORRIDORS
AREAS OF HEAVY JET TRAFFIC
11000 AND ABOVE
7000 AND ABOVE
AIRPORT TRAFFIC AREA COMPLY WITH FAR 91.87

CONTACT DENVER
APPROACH CONTROL
120.5 – 288.1
ATIS 125.6

ENTIRE AREA OF
THIS GRAPHIC FALLS
WITHIN DENVER TCA

CONTACT DENVER
APPROACH CONTROL
120.8 – 363.0
ATIS 125.6

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

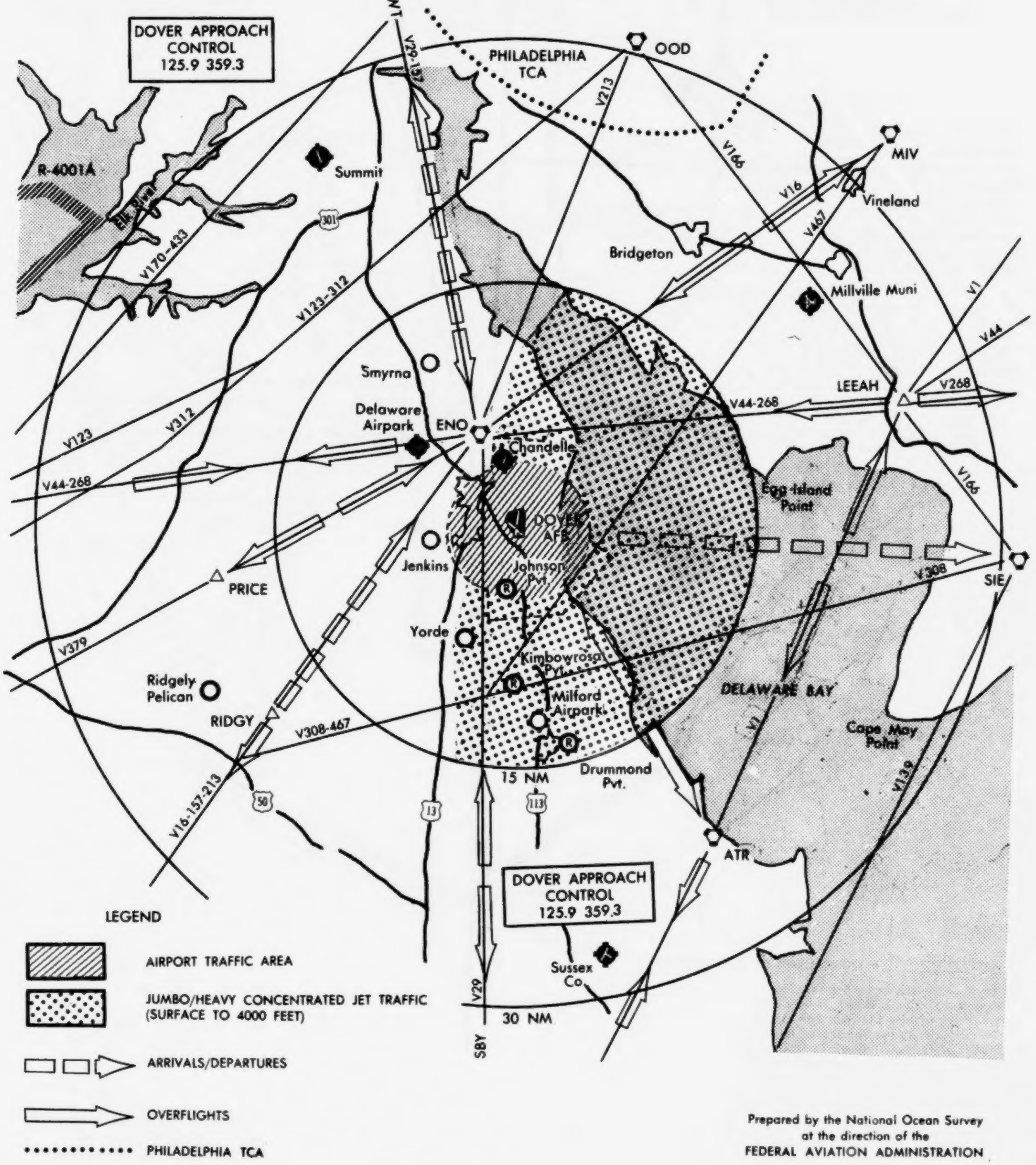
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DOVER AFB, DELAWARE

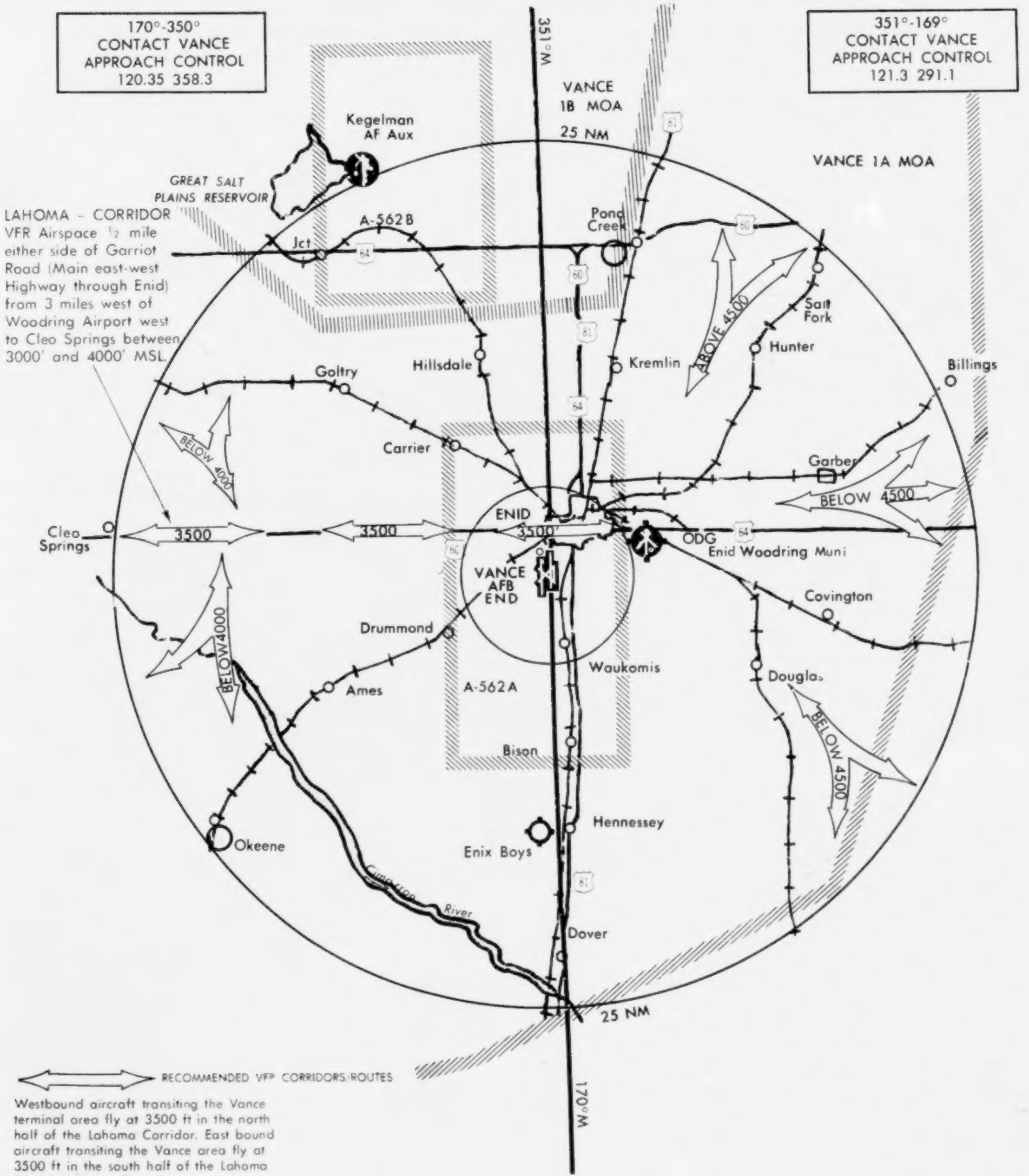
THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DOVER RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT DOVER APPROACH CONTROL ON 125.9 - 359.3 FOR TRAFFIC ADVISORIES.


DOVER APPROACH CONTROL 125.9 359.3
EWT
V29-157
PHILADELPHIA TCA
OOD
V213
V166
MIV
V16
Vineland
V467
Bridgeton
Millville Muni
R-4001A
Elk River
Summit
301
V170-433
V123-312
Smyrna
Delaware Airpark
ENO
Chandelle
V123
V312
V44-268
V1
V44
LEEAH
V268
Egg Island Point
DOVER AFB
Jenkins
Johnson Pvt.
PRICE
V379
SIE
V308
Yorde
Kimbowrosa Pvt.
Ridgely Pelican
RIDGY
V308-467
Milford Airpark
DELAWARE BAY
Cape May Point
V3
V139
Drummond Pvt.
15 NM
V16-157-213
50
13
113
ATR
DOVER APPROACH CONTROL 125.9 359.3
Sussex Co.
V29
30 NM
SBY
LEGEND
▨ AIRPORT TRAFFIC AREA
JUMBO/HEAVY CONCENTRATED JET TRAFFIC (SURFACE TO 4000 FEET)
ARRIVALS/DEPARTURES
OVERFLIGHTS
PHILADELPHIA TCA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ENID - VANCE, OKLAHOMA



170°-350°
CONTACT VANCE
APPROACH CONTROL
120.35 358.3
351°-169°
CONTACT VANCE
APPROACH CONTROL
121.3 291.1
351°M
VANCE
1B MOA
25 NM
VANCE 1A MOA
Kegelman
AF Aux
GREAT SALT
PLAINS RESERVOIR
LAHOMA - CORRIDOR
VFR Airspace ½ mile either side of Garriot Road (Main east-west Highway through Enid) from 3 miles west of Woodring Airport west to Cleo Springs between 3000' and 4000' MSL.
Jct
A-562 B
64
Pond
Creek
60
81
Salt
Fork
Hunter
ABOVE 4500
Kremlin
Billings
Goltry
Hillsdale
Carrier
Garber
BELOW 4000
BELOW 4500
ENID
3500'
ODG
Enid Woodring Muni
Cleo
Springs
3500
3500
VANCE
AFB
END
Covington
Drummond
Waukomis
Douglas
BELOW4000
Ames
A-562A
BELOW 4500
Bison
Hennessey
Okeene
Enix Boys
Cimarron River
Dover
25 NM
170°M
RECOMMENDED VFR CORRIDORS/ROUTES

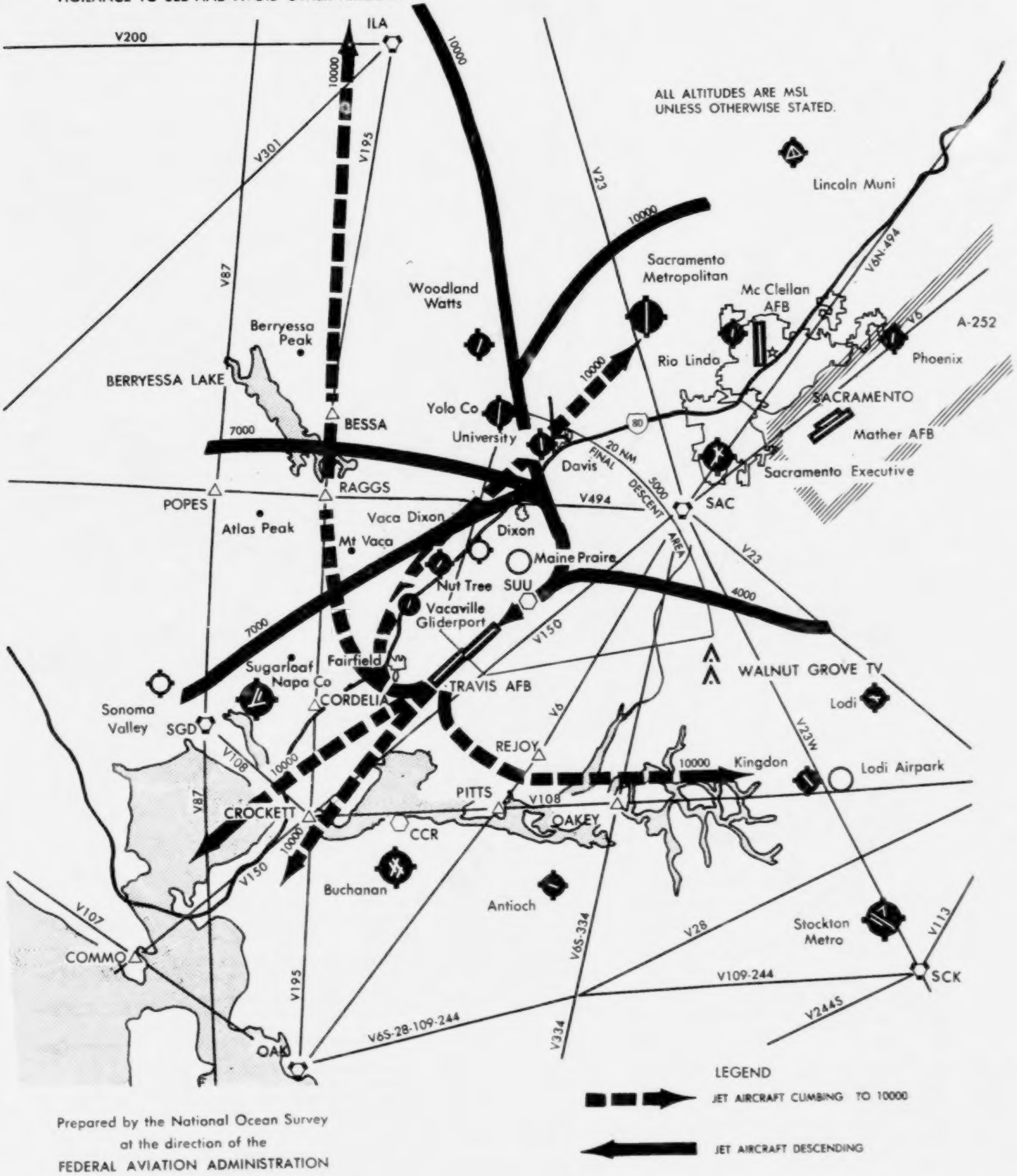
Westbound aircraft transiting the Vance terminal area fly at 3500 ft in the north half of the Lahoma Corridor. East bound aircraft transiting the Vance area fly at 3500 ft in the south half of the Lahoma Corridor. For traffic advisories, contact Vance Approach Control.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FAIRFIELD, TRAVIS AFB, CALIF.

THIS CHART SHOWS CONCENTRATED IFR TRAFFIC FLOWS IN THE TRAVIS AFB AREA. IT HAS BEEN PREPARED TO ASSIST VFR PILOTS IN PLANNING FLIGHT IN THE AREA. VFR PILOTS INTENDING TO OPERATE IN THE AREA ARE ENCOURAGED TO CONTACT TRAVIS APPROACH CONTROL ON 119.9 OR 126.6 MHz FOR RADAR TRAFFIC ADVISORY SERVICE, WHICH WILL BE PROVIDED ON A WORKLOAD PERMITTING BASIS. TRAFFIC ADVISORY SERVICE DOES NOT RELEIVE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.



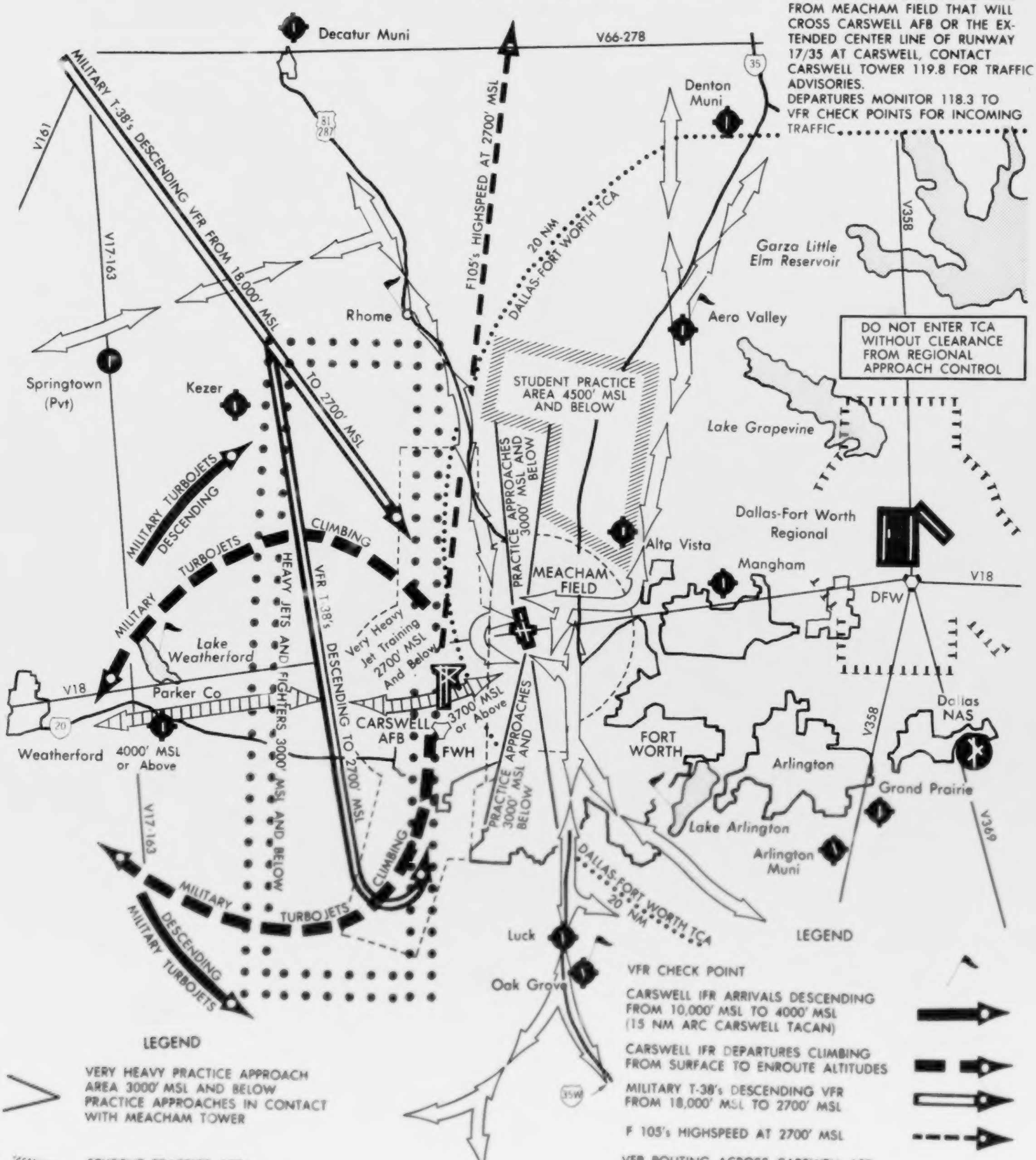
V200
ILA
10000
10000
V195
V301
V23
ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.
Lincoln Muni
10000
V6N-494
Sacramento
Metropolitan
Mc Clellan
AFB
V6
A-252
V87
Woodland
Watts
Berryessa
Peak
Phoenix
BERRYESSA LAKE
10000
Rio Linda
Yolo Co
SACRAMENTO
7000
BESSA
University
80
Mather AFB
20 NM
FINAL
Davis
5000
DESCENT
AREA
Sacramento Executive
RAGGS
POPES
V494
SAC
Atlas Peak
Vaca Dixon
Dixon
Mt Vaca
Maine Praire
V23
Nut Tree
SUU
4000
Vacaville
Gliderport
V150
7000
Sugarloaf
Fairfield
Napa Co
TRAVIS AFB
WALNUT GROVE TV
Sonoma
Valley
SGD
CORDELIA
V6
Lodi
V23W
V108
10000
REJOY
10000
Kingdon
Lodi Airpark
PITTS
V108
CROCKETT
V87
OAKEY
10000
CCR
V150
Buchanan
Antioch
V6S-334
V107
V28
Stockton
Metro
V113
COMMO
V195
V109-244
SCK
V244S
V6S-28-109-244
V334
OAK
LEGEND
JET AIRCRAFT CLIMBING TO 10000
JET AIRCRAFT DESCENDING

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FORT WORTH, TEXAS
MEACHAM FIELD, CARSWELL AFB


Decatur Muni
V66-278
35
81
287
F105's HIGHSPEED AT 2700' MSL
Denton Muni
20 NM
DALLAS-FORT WORTH TCA
V161
V17-163
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL
TO 2700' MSL
Garza Little Elm Reservoir
V358
Rhome
Aero Valley
Springtown (Pvt)
Kezer
STUDENT PRACTICE AREA 4500' MSL AND BELOW
Lake Grapevine
PRACTICE APPROACHES 3000' MSL AND BELOW
MILITARY TURBOJETS DESCENDING
MILITARY TURBOJETS
CLIMBING
Dallas-Fort Worth Regional
Alta Vista
Mangham
MEACHAM FIELD
V18
DFW
HEAVY JETS AND FIGHTERS 3000' MSL AND BELOW
VFR T-38's DESCENDING TO 2700' MSL
Very Heavy Jet Training 2700' MSL And Below
Lake Weatherford
V18
Parker Co
20
Weatherford
4000' MSL or Above
CARSWELL AFB
3700' MSL or Above
FWH
PRACTICE APPROACHES 3000' MSL AND BELOW
FORT WORTH
Arlington
V358
Dallas NAS
Grand Prairie
V369
V17-163
Lake Arlington
Arlington Muni
CLIMBING
MILITARY
TURBOJETS
MILITARY TURBOJETS DESCENDING
DALLAS-FORT WORTH TCA
20 NM
Luck
Oak Grove
35W

AIRCRAFT REQUESTING RADAR ADVISORIES CONTACT REGIONAL APPROACH CONTROL 120.5.

ALL AIRCRAFT OPERATING TO AND FROM MEACHAM FIELD THAT WILL CROSS CARSWELL AFB OR THE EXTENDED CENTER LINE OF RUNWAY 17/35 AT CARSWELL, CONTACT CARSWELL TOWER 119.8 FOR TRAFFIC ADVISORIES.

DEPARTURES MONITOR 118.3 TO VFR CHECK POINTS FOR INCOMING TRAFFIC.

DO NOT ENTER TCA WITHOUT CLEARANCE FROM REGIONAL APPROACH CONTROL

LEGEND

- VERY HEAVY PRACTICE APPROACH AREA 3000' MSL AND BELOW PRACTICE APPROACHES IN CONTACT WITH MEACHAM TOWER
- STUDENT PRACTICE AREA VERY HEAVY DENSITY SINGLE ENGINE LOW PERFORMANCE AIRCRAFT
- CARSWELL GCA PATTERN-HEAVY JETS AT 3000' MSL

LEGEND

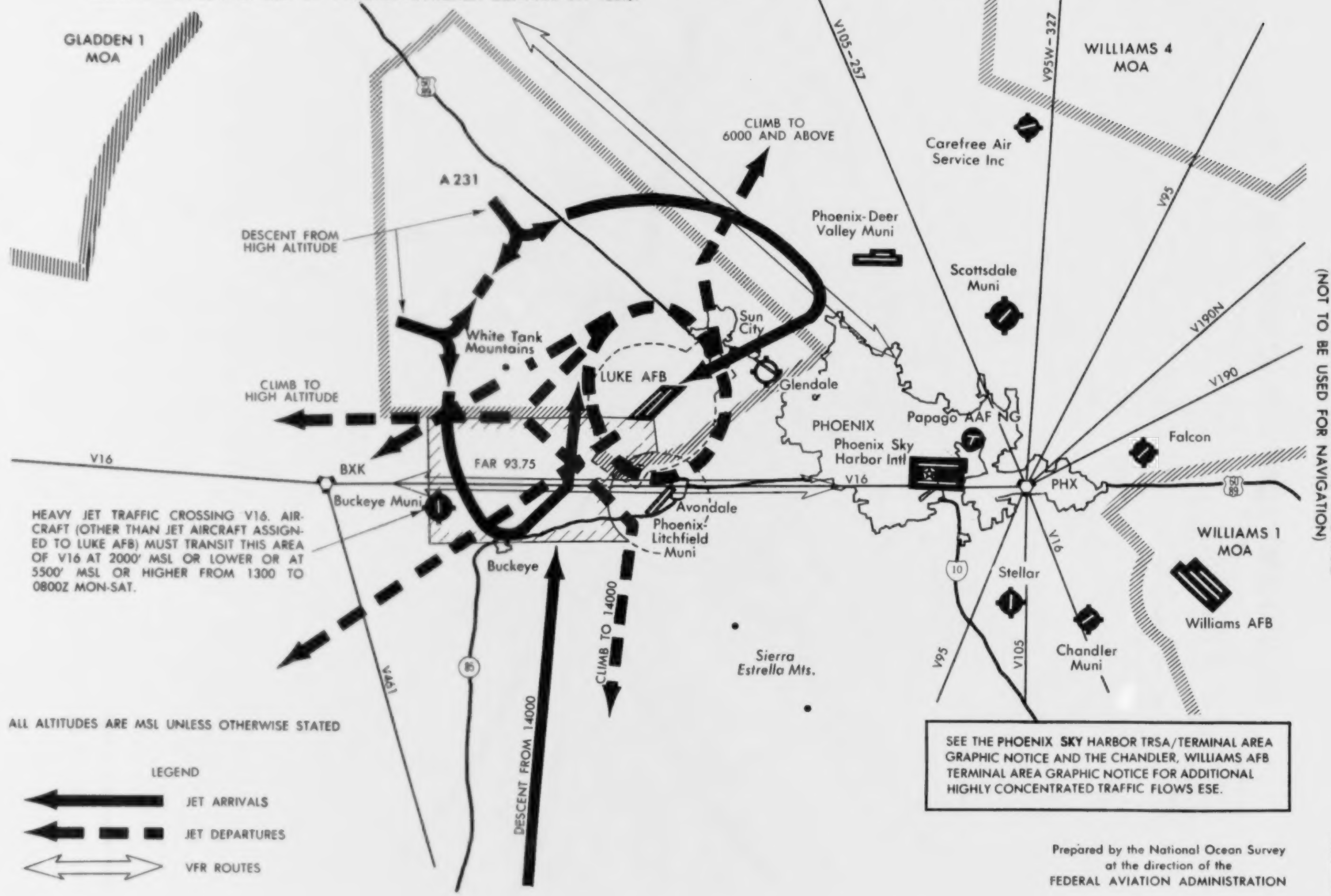
- VFR CHECK POINT
- CARSWELL IFR ARRIVALS DESCENDING FROM 10,000' MSL TO 4000' MSL (15 NM ARC CARSWELL TACAN)
- CARSWELL IFR DEPARTURES CLIMBING FROM SURFACE TO ENROUTE ALTITUDES
- MILITARY T-38's DESCENDING VFR FROM 18,000' MSL TO 2700' MSL
- F 105's HIGHSPEED AT 2700' MSL
- VFR ROUTING ACROSS CARSWELL AFB ALTITUDES 3700' MSL OR ABOVE TWO MILES EAST OF CARSWELL AFB, 4000' MSL OR ABOVE 8 MILES WEST OF CARSWELL (GCA PATTERN)
- RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTES FOR MEACHAM FIELD.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

GLENDALE, LUKE AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LUKE AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 126.8.


GLADDEN 1 MOA
A 231
DESCENT FROM HIGH ALTITUDE
CLIMB TO 6000 AND ABOVE
V105–257
V95W–327
WILLIAMS 4 MOA
Carefree Air Service Inc
Phoenix-Deer Valley Muni
Scottsdale Muni
V95
V190N
V190
White Tank Mountains
Sun City
LUKE AFB
Glendale
PHOENIX
Papago AAF NG
Phoenix Sky Harbor Intl
Falcon
PHX
CLIMB TO HIGH ALTITUDE
V16
BXK
FAR 93.75
Buckeye Muni
Avondale
Phoenix-Litchfield Muni
Buckeye
CLIMB TO 14000
DESCENT FROM 14000
Sierra Estrella Mts.
10
85
60 89
V461
V95
V105
V16
Stellar
Chandler Muni
WILLIAMS 1 MOA
Williams AFB
LEGEND
JET ARRIVALS
JET DEPARTURES
VFR ROUTES

HEAVY JET TRAFFIC CROSSING V16. AIRCRAFT (OTHER THAN JET AIRCRAFT ASSIGNED TO LUKE AFB) MUST TRANSIT THIS AREA OF V16 AT 2000' MSL OR LOWER OR AT 5500' MSL OR HIGHER FROM 1300 TO 0800Z MON-SAT.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

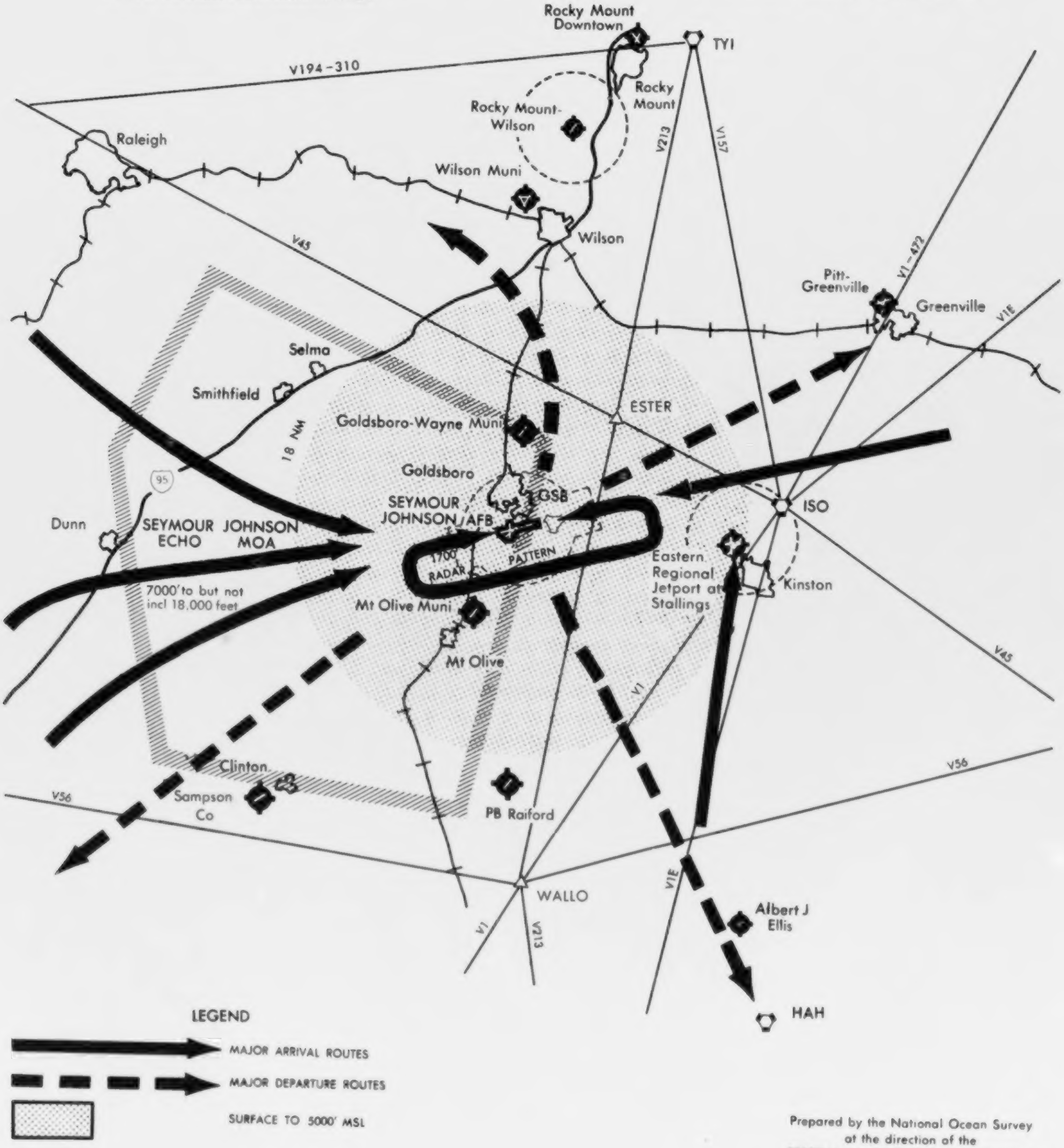
SEE THE PHOENIX **SKY** HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

GOLDSBORO, SEYMOUR JOHNSON AFB, N.C.

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE AIRCRAFT TRAFFIC IN THE VICINITY OF SEYMOUR JOHNSON AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST OF KC/EC-135's, B-52's F-4's, AND T38's. WITHIN 18 NM OF THE SEYMOUR JOHNSON TACAN, AIRCRAFT OPERATE FROM 1700 TO 5000 FT. MSL. THE RADAR ARRIVAL PATTERN IS NORMALLY ON THE SOUTH SIDE OF THE RUNWAY. AIRCRAFT ARE AT 1700 FT MSL ON THE DOWNWIND AND BASE LEG. THE SEYMOUR JOHNSON ECHO MOA IS USED BY F-4's AND T38's IN VFR CONDITIONS. AIRCRAFT IN THIS AREA OPERATE FROM 7000 FT. MSL TO FL 200 WITH ATC APPROVAL. IT IS SUGGESTED THAT VFR AIRCRAFT TRANSITING THE AREA AND ARRIVING/DEPARTING GOLDSBORO-WAYNE MUNICIPAL AIRPORT, MT. OLIVE MUNICIPAL AIRPORT, AND STALLINGS FIELD CONTACT SEYMOUR JOHNSON APPROACH CONTROL ON 119.7 MHZ/338.6 MHZ FOR TRAFFIC ADVISORIES. RECOMMEND THAT VFR TRAFFIC USE ROUTES AND ALTITUDES TO AVOID THE DEPICTED AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE TRAFFIC IN THE SEYMOUR JOHNSON AFB TERMINAL AREA.


Rocky Mount Downtown
TYI
V194-310
Rocky Mount
Rocky Mount-Wilson
V213
V157
Raleigh
Wilson Muni
Wilson
V45
Pitt-Greenville
V1-472
Greenville
V1E
Selma
Smithfield
18 NM
ESTER
Goldsboro-Wayne Muni
Goldsboro
95
Dunn
SEYMOUR JOHNSON ECHO MOA
SEYMOUR JOHNSON AFB
GSB
ISO
1700 RADAR PATTERN
Eastern Regional Jetport at Stallings
Kinston
7000' to but not incl 18,000 feet
Mt Olive Muni
Mt Olive
V1
V45
V56
Clinton
Sampson Co
PB Raiford
V56
WALLO
V1E
Albert J Ellis
V1
V213
HAH
LEGEND
MAJOR ARRIVAL ROUTES
MAJOR DEPARTURE ROUTES
SURFACE TO 5000' MSL

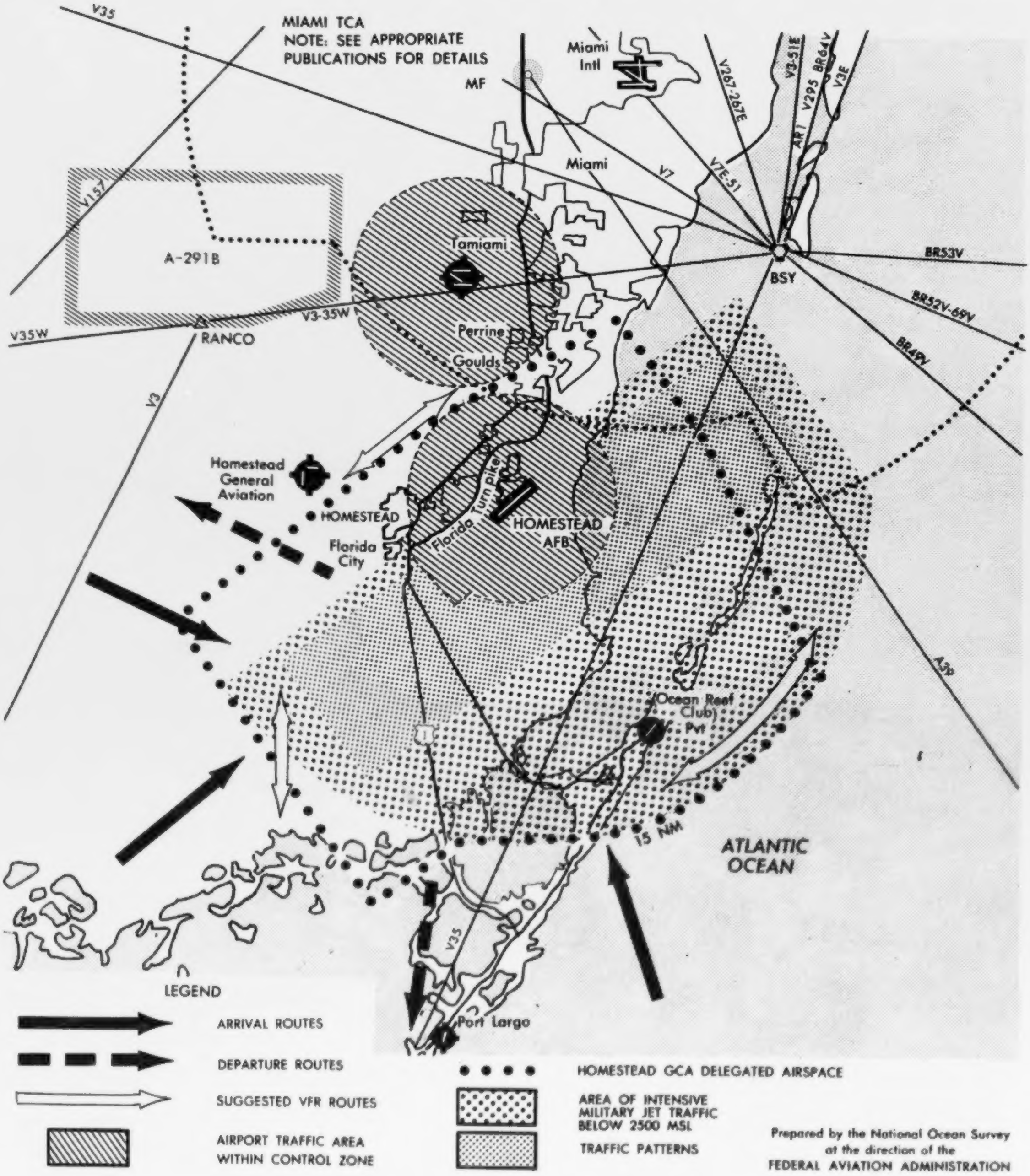
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOMESTEAD AFB, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE MILITARY JET OPERATIONS IN THE VICINITY OF HOMESTEAD AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST PRIMARILY OF F-4s AND HELICOPTERS. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT HOMESTEAD GCA ON 123.8 OR HOMESTEAD TOWER ON 126.2 STAGE II SERVICE IS AVAILABLE FOR AIRCRAFT ARRIVING HOMESTEAD AFB.

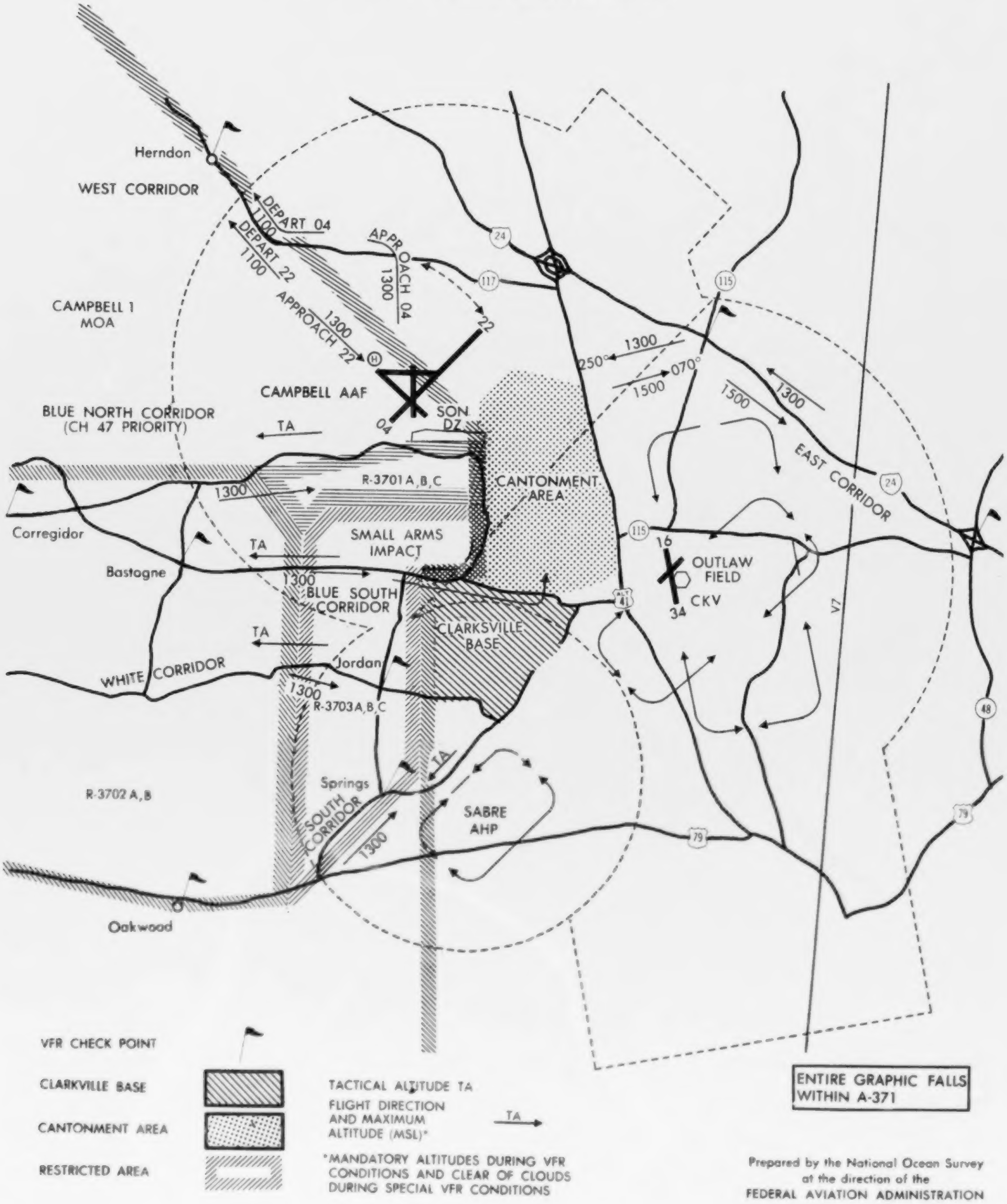

V35
MIAMI TCA
NOTE: SEE APPROPRIATE PUBLICATIONS FOR DETAILS
MF
Miami Intl
V267-267E
V3-51E
AR1
V295
BR64V
V3E
Miami
V7
V7E-51
V157
A-291B
Tamiami
BSY
BR53V
BR52V-69V
BR49V
V3-35W
V35W
RANCO
Perrine
Goulds
V3
Homestead General Aviation
HOMESTEAD
Florida City
Florida Turnpike
HOMESTEAD AFB
Ocean Reef Club Pvt
A39
1
15 NM
ATLANTIC OCEAN
V35
Port Largo
LEGEND
ARRIVAL ROUTES
DEPARTURE ROUTES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA WITHIN CONTROL ZONE
HOMESTEAD GCA DELEGATED AIRSPACE
AREA OF INTENSIVE MILITARY JET TRAFFIC BELOW 2500 MSL
TRAFFIC PATTERNS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

5 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOPKINSVILLE, CAMPBELL AAF, KY.
VFR/SPECIAL VFR MILITARY HELICOPTER ROUTES
FORT CAMPBELL, KY. AREA


Herndon
WEST CORRIDOR
DEPART 04
1100
DEPART 22
1100
APPROACH 04
1300
APPROACH 22
1300
22
04
CAMPBELL 1
MOA
CAMPBELL AAF
SON
DZ
BLUE NORTH CORRIDOR
(CH 47 PRIORITY)
TA
24
117
115
250°
1300
070°
1500
1500
1300
EAST CORRIDOR
24
R-3701 A,B,C
1300
CANTONMENT
AREA
Corregidor
SMALL ARMS
IMPACT
TA
Bastogne
1300
BLUE SOUTH
CORRIDOR
115
16
OUTLAW
FIELD
CKV
34
41
V7
CLARKSVILLE
BASE
TA
WHITE CORRIDOR
Jordan
1300
R-3703 A,B,C
48
R-3702 A,B
Springs
TA
SOUTH
CORRIDOR
1300
SABRE
AHP
79
79
Oakwood
VFR CHECK POINT
CLARKVILLE BASE
CANTONMENT AREA
RESTRICTED AREA
TACTICAL ALTITUDE TA
FLIGHT DIRECTION
AND MAXIMUM
ALTITUDE (MSL)*
TA
*MANDATORY ALTITUDES DURING VFR
CONDITIONS AND CLEAR OF CLOUDS
DURING SPECIAL VFR CONDITIONS

ENTIRE GRAPHIC FALLS
WITHIN A-371

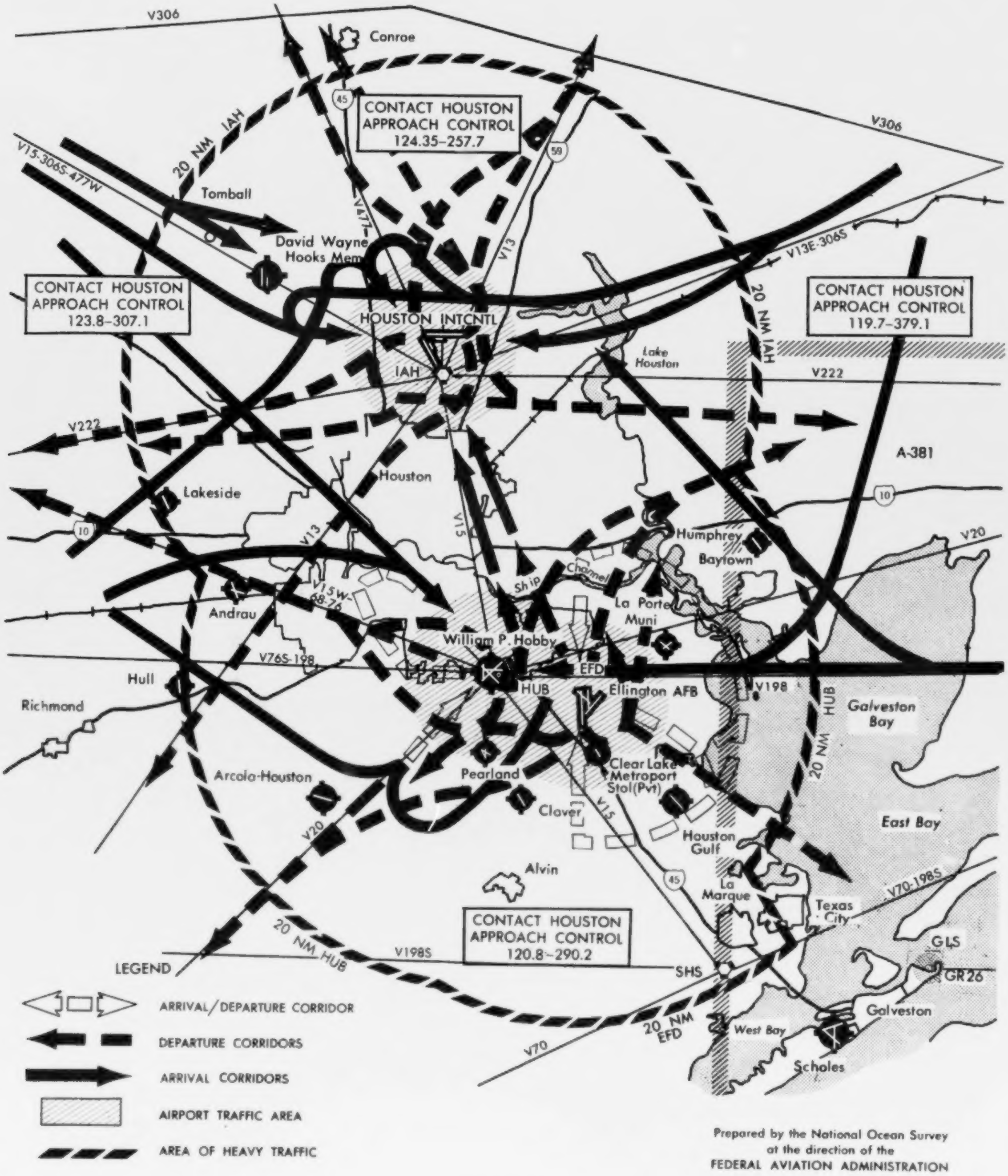
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOUSTON, TEXAS

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE ROUTES SERVING THE HOUSTON TERMINAL AREA FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS ARE ENCOURAGED TO CONTACT HOUSTON APPROACH CONTROL FOR TRAFFIC ADVISORY SERVICE.


V306
Conroe
45
CONTACT HOUSTON
APPROACH CONTROL
124.35–257.7
V306
59
20 NM IAH
V15-306S-477W
Tomball
V477
David Wayne
Hooks Mem
V13
V13E-306S
CONTACT HOUSTON
APPROACH CONTROL
123.8–307.1
HOUSTON INTCNTL
IAH
20 NM IAH
CONTACT HOUSTON
APPROACH CONTROL
119.7–379.1
Lake
Houston
V222
V222
A-381
Houston
Lakeside
10
V15
10
V13
Humphrey
Baytown
V20
Ship
Channel
V15W-68-76
Andrau
La Porte
Muni
William P. Hobby
V76S-198
EFD
Hull
HUB
Ellington AFB
V198
Richmond
HUB
Galveston
Bay
20 NM
Arcola-Houston
Pearland
Clear Lake
Metroport
Stol(Pvt)
Clover
V15
V20
East Bay
Houston
Gulf
Alvin
45
La
Marque
V70-198S
Texas
City
CONTACT HOUSTON
APPROACH CONTROL
120.8–290.2
20 NM HUB
V198S
GLS
SHS
GR26
Galveston
20 NM
EFD
West Bay
V70
Scholes
LEGEND
ARRIVAL/DEPARTURE CORRIDOR
DEPARTURE CORRIDORS
ARRIVAL CORRIDORS
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

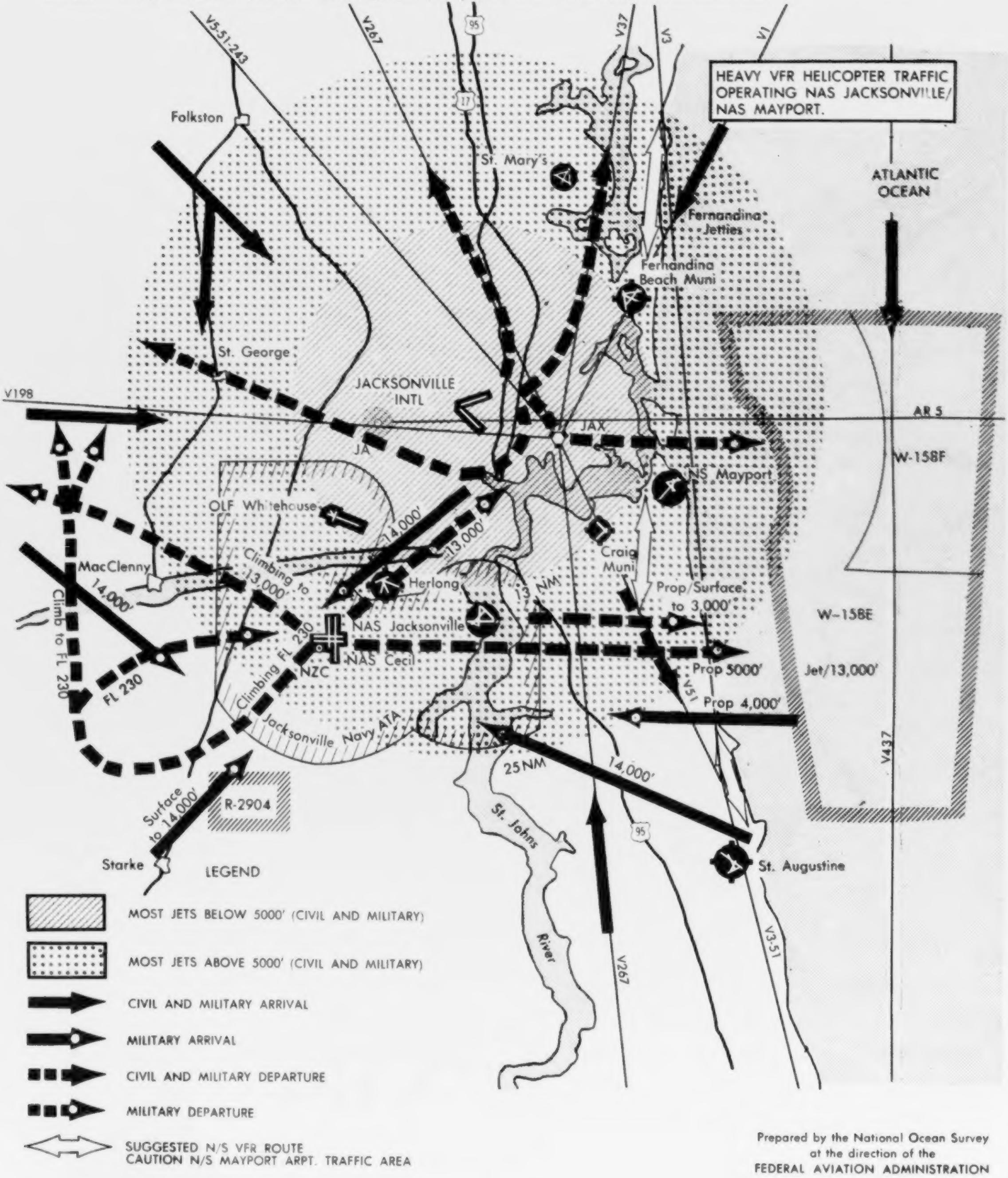
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE INTL. AIRPORT, JACKSONVILLE, FLORIDA

THIS GRAPHIC SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE JACKSONVILLE TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT JACKSONVILLE APPROACH CONTROL ON 119.0/335.6 WHILE TRANSITING THIS AIRSPACE.

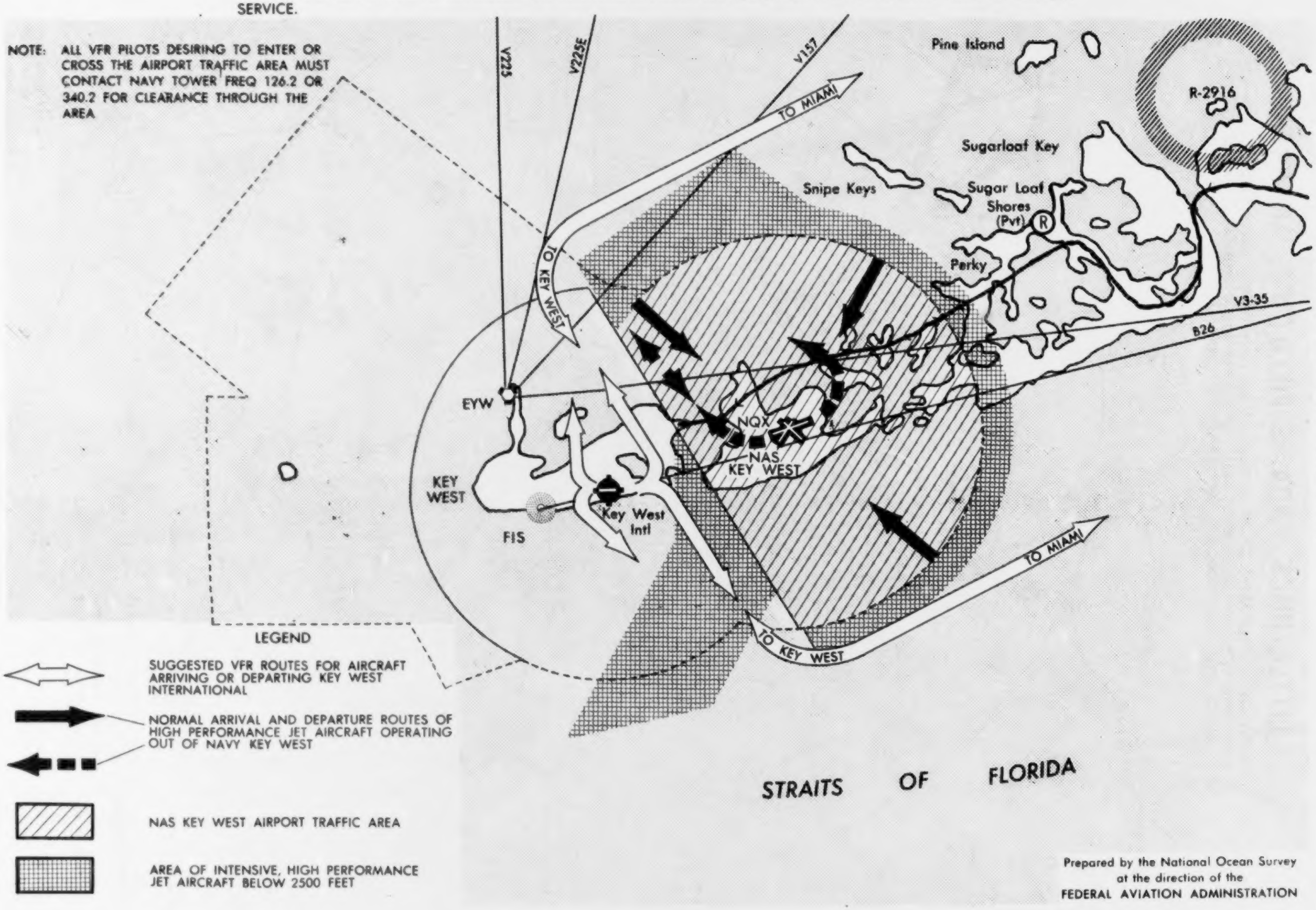

V5-51-243
V267
95
V37
V3
V1
HEAVY VFR HELICOPTER TRAFFIC OPERATING NAS JACKSONVILLE/NAS MAYPORT.
17
Folkston
St. Mary's
ATLANTIC OCEAN
Fernandina Jetties
Fernandina Beach Muni
St. George
JACKSONVILLE INTL
V198
JAX
AR 5
JA
W-158F
NS Mayport
OLF Whitehouse
14,000'
13,000'
Climbing to 13,000'
MacClenny
Herlong
Craig Muni
14,000'
Climb to FL 230
13 NM
Prop/Surface to 3,000'
NAS Jacksonville
Climbing FL 230
NZC
NAS Cecil
W-158E
Prop 5000'
Jet/13,000'
FL 230
V51
Prop 4,000'
Jacksonville Navy ATA
25NM
14,000'
V437
Surface to 14,000'
R-2904
St. Johns
95
St. Augustine
Starke
LEGEND
River
V267
V3-51
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL
CIVIL AND MILITARY DEPARTURE
MILITARY DEPARTURE
SUGGESTED N/S VFR ROUTE
CAUTION N/S MAYPORT ARPT. TRAFFIC AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

KEY WEST NAS, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE JET OPERATIONS IN THE VICINITY OF KEY WEST. MILITARY AIRCRAFT CONSIST PRIMARILY OF A-4, F-4, AND A-5 TYPE AIRCRAFT. ALL VFR PILOTS OPERATING IN THE KEY WEST AREA ARE ENCOURAGED TO CONTACT KEY WEST APPROACH ON 118.7 OR 263.6 FOR RADAR ADVISORY SERVICE.

NOTE: ALL VFR PILOTS DESIRING TO ENTER OR CROSS THE AIRPORT TRAFFIC AREA MUST CONTACT NAVY TOWER FREQ 126.2 OR 340.2 FOR CLEARANCE THROUGH THE AREA

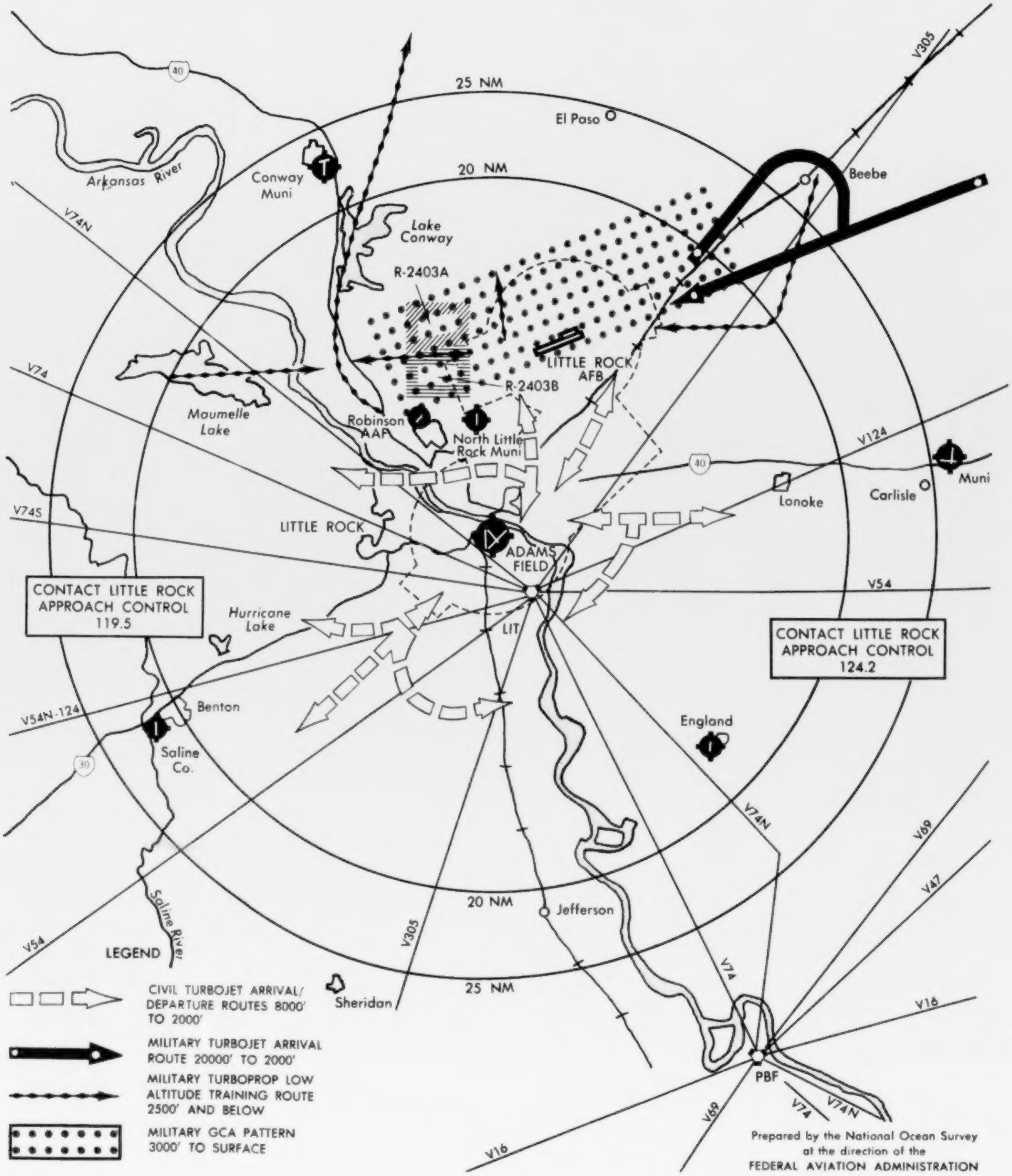

V225
V225E
V157
TO MIAMI
Pine Island
R-2916
Sugarloaf Key
Snipe Keys
Sugar Loaf Shores (Pvt)
R
Perky
V3-35
B26
TO KEY WEST
EYW
NQX
NAS KEY WEST
KEY WEST
Key West Intl
FIS
TO MIAMI
TO KEY WEST
STRAITS OF FLORIDA
LEGEND
SUGGESTED VFR ROUTES FOR AIRCRAFT ARRIVING OR DEPARTING KEY WEST INTERNATIONAL
NORMAL ARRIVAL AND DEPARTURE ROUTES OF HIGH PERFORMANCE JET AIRCRAFT OPERATING OUT OF NAVY KEY WEST
NAS KEY WEST AIRPORT TRAFFIC AREA
AREA OF INTENSIVE, HIGH PERFORMANCE JET AIRCRAFT BELOW 2500 FEET

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK ADAMS FIELD/AFB, ARKANSAS

THIS CHART SHOWS AREAS OF IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LITTLE ROCK AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT LITTLE ROCK APPROACH FOR TRAFFIC ADVISORIES.


25 NM
20 NM
El Paso
Beebe
V305
40
Arkansas River
Conway Muni
Lake Conway
V74N
R-2403A
R-2403B
LITTLE ROCK AFB
V74
Maumelle Lake
Robinson AAF
North Little Rock Muni
V124
40
Muni
Carlisle
Lonoke
V74S
LITTLE ROCK
ADAMS FIELD
V54
CONTACT LITTLE ROCK APPROACH CONTROL 119.5
Hurricane Lake
LIT
CONTACT LITTLE ROCK APPROACH CONTROL 124.2
V54N-124
Benton
Saline Co.
30
England
V74N
V69
V47
20 NM
Jefferson
Saline River
V54
V305
V74
LEGEND
25 NM
Sheridan
V16
PBF
V74
V74N
V69
V16
CIVIL TURBOJET ARRIVAL/ DEPARTURE ROUTES 8000' TO 2000'
MILITARY TURBOJET ARRIVAL ROUTE 20000' TO 2000'
MILITARY TURBOPROP LOW ALTITUDE TRAINING ROUTE 2500' AND BELOW
MILITARY GCA PATTERN 3000' TO SURFACE

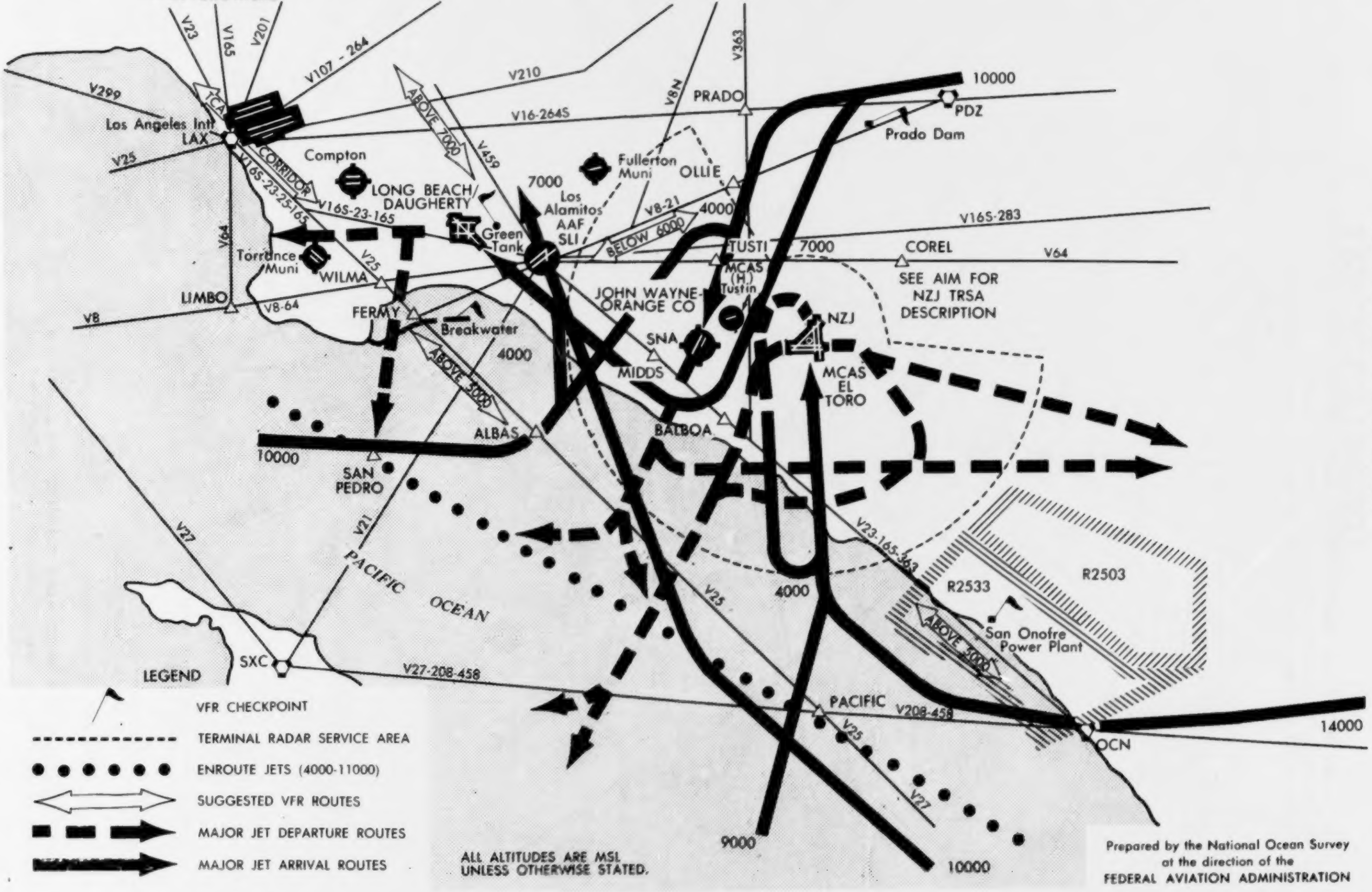
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

LONG BEACH, CALIFORNIA

DAUGHERTY-JOHN WAYNE-ORANGE COUNTY-EL

THIS CHART, DEPICITING THE IFR ROUTES WITHIN THE COAST APPROACH CONTROL AIRSPACE, IS TO ASSIST PILOTS IN PLANNING FLIGHTS INTO AND THROUGH THE AREA. STAGE II SERVICE TO LONG BEACH AIRPORT, AND TRAFFIC ADVISORY SERVICE IS AVAILABLE ON THE FOLLOWING FREQUENCIES: NORTH AND EAST OF SEAL BEACH VOR-121.3; SOUTH-124.65; WEST-127.2. SOUTH EAST OF SANTA ANA VOR-124.1. STAGE III SERVICE IS AVAILABLE AT EL TORO MCAS


V23
V165
V201
V107 - 264
V299
TCA
Los Angeles Intl
LAX
V25
CORRIDOR
V16S-23-25-165
V16S-23-165
Compton
LONG BEACH/
DAUGHERTY
Green
Tank
ABOVE 7000
V210
V16-264S
V459
7000
Los
Alamitos
AAF
SLI
Fullerton
Muni
V8N
PRADO
V363
OLLIE
V8-21
4000
BELOW 6000
TUSTI
7000
MCAS
(H)
Tustin
V16S-283
COREL
V64
10000
PDZ
Prado Dam
SEE AIM FOR
NZJ TRSA
DESCRIPTION
NZJ
MCAS
EL
TORO
JOHN WAYNE-
ORANGE CO
SNA
MIDDS
BALBOA
Torrance
Muni
WILMA
V64
LIMBO
V8-64
V8
FERMY
Breakwater
4000
ABOVE 3000
ALBAS
10000
SAN
PEDRO
V21
V27
PACIFIC
OCEAN
SXC
V27-208-458
V23-165-363
V25
4000
R2533
R2503
ABOVE 3000
San Onofre
Power Plant
PACIFIC
V208-458
V25
V27
OCN
14000
9000
10000
LEGEND
VFR CHECKPOINT
TERMINAL RADAR SERVICE AREA
ENROUTE JETS (4000-11000)
SUGGESTED VFR ROUTES
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES

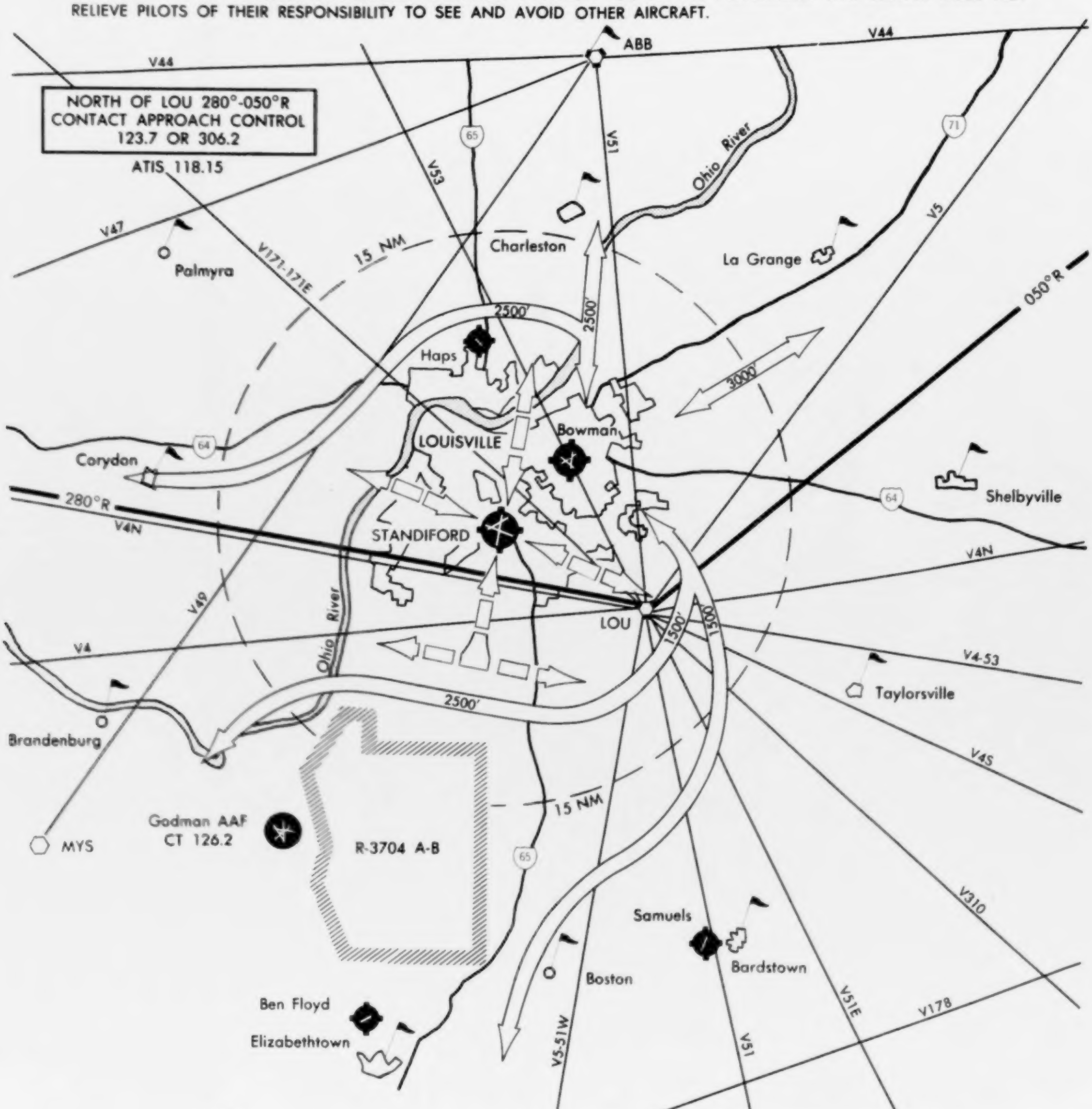
ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY

THIS CHART SHOWS THE PRINCIPAL IFR JET TRAFFIC ROUTES. VFR PILOTS OPERATING IN THIS AREA ARE STRONGLY ENCOURAGED TO CONTACT STANDIFORD APPROACH CONTROL FOR TRAFFIC ADVISORIES. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.


NORTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
123.7 OR 306.2
ATIS 118.15
ABB
V44
V44
65
V53
V51
Ohio River
71
V5
V47
Palmyra
V171-171E
15 NM
Charleston
La Grange
050°R
2500'
2500'
Haps
3000'
LOUISVILLE
Bowman
Corydon
64
280°R
V4N
STANDIFORD
64
Shelbyville
V4N
V49
Ohio River
LOU
1500'
1000'
V4
V4-53
Taylorsville
2500'
Brandenburg
V4S
15 NM
Godman AAF
CT 126.2
MYS
R-3704 A-B
65
V310
Samuels
Bardstown
Boston
V51E
V178
Ben Floyd
Elizabethtown
V5-51W
V51
EWO
SOUTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
124.5 OR 388.2
ATIS 118.15

LEGEND

- ⇦▭⇨ JET ARRIVALS AND DEPARTURES SURFACE TO 6000' MSL
- ⇦⇨ RECOMMENDED VFR ROUTES FOR AIRCRAFT NOT IN CONTACT WITH SDF A/C
- — — — — TRSA 2000' TO 6000' MSL

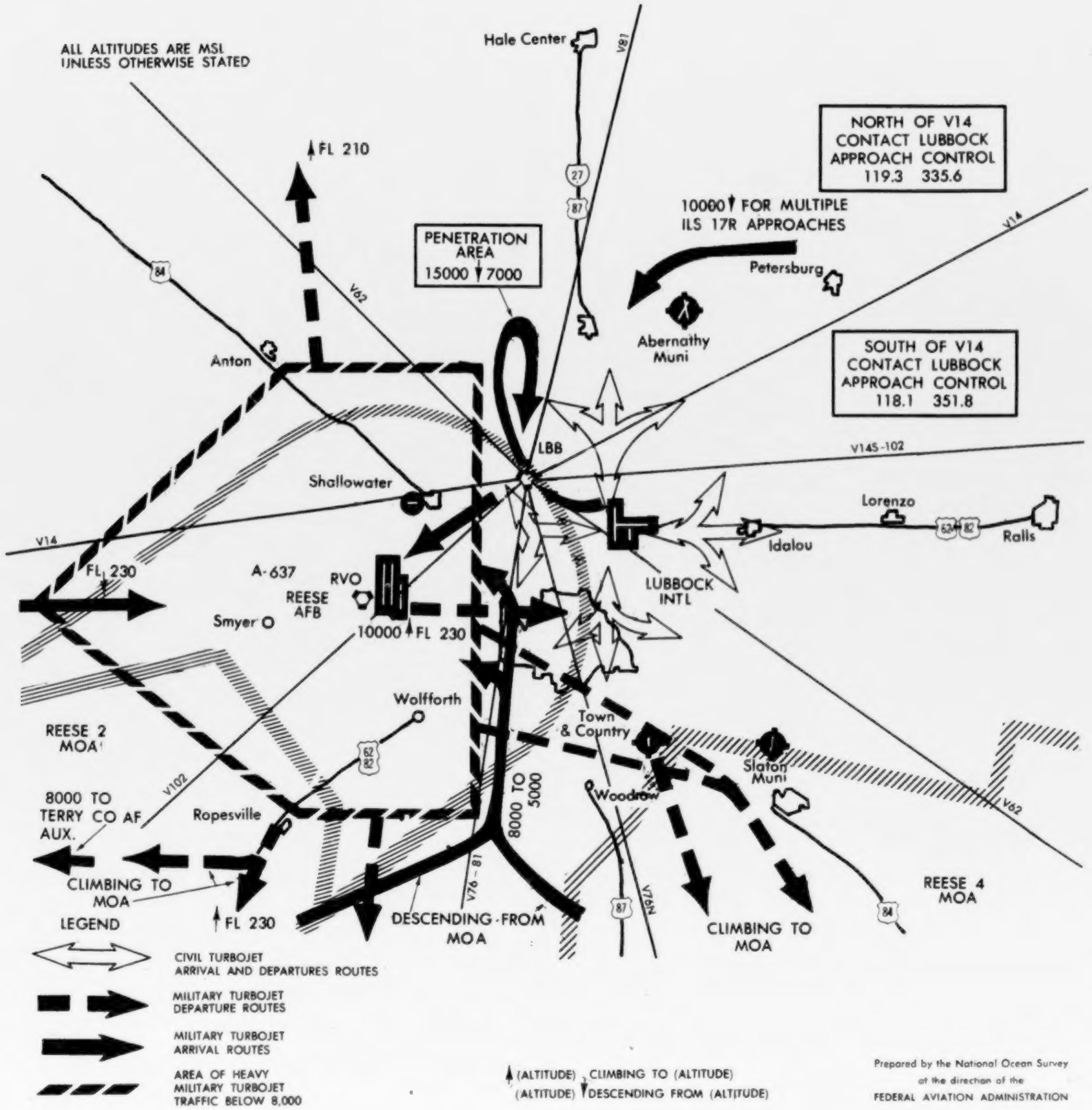
AIRCRAFT RECEIVING STAGE III SERVICE MAY EXPECT DIRECT ROUTINGS TO THE EXTENT POSSIBLE.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LUBBOCK INTERNATIONAL, TEXAS

THIS CHART SHOWS AREAS OF CONCENTRATED TURBOJET IFR TRAFFIC AND AREAS WHICH CONTAIN A HIGH VOLUME OF TURBOJET OPERATIONS IN THE LUBBOCK/ REESE AFB TERMINAL AREA. HIGH PERFORMANCE AIRCRAFT LANDING LUBBOCK INTERNATIONAL AIRPORT ARE NORMALLY IN A GRADUATED DESCENT (300′ PER MILE) FROM APPROXIMATELY 12,000 MSL AT 30 NM FROM THE AIRPORT TO THE LANDING RUNWAY. AIRCRAFT ARE ENCOURAGED TO CONTACT LUBBOCK APPROACH CONTROL FOR TRAFFIC ADVISORIES.

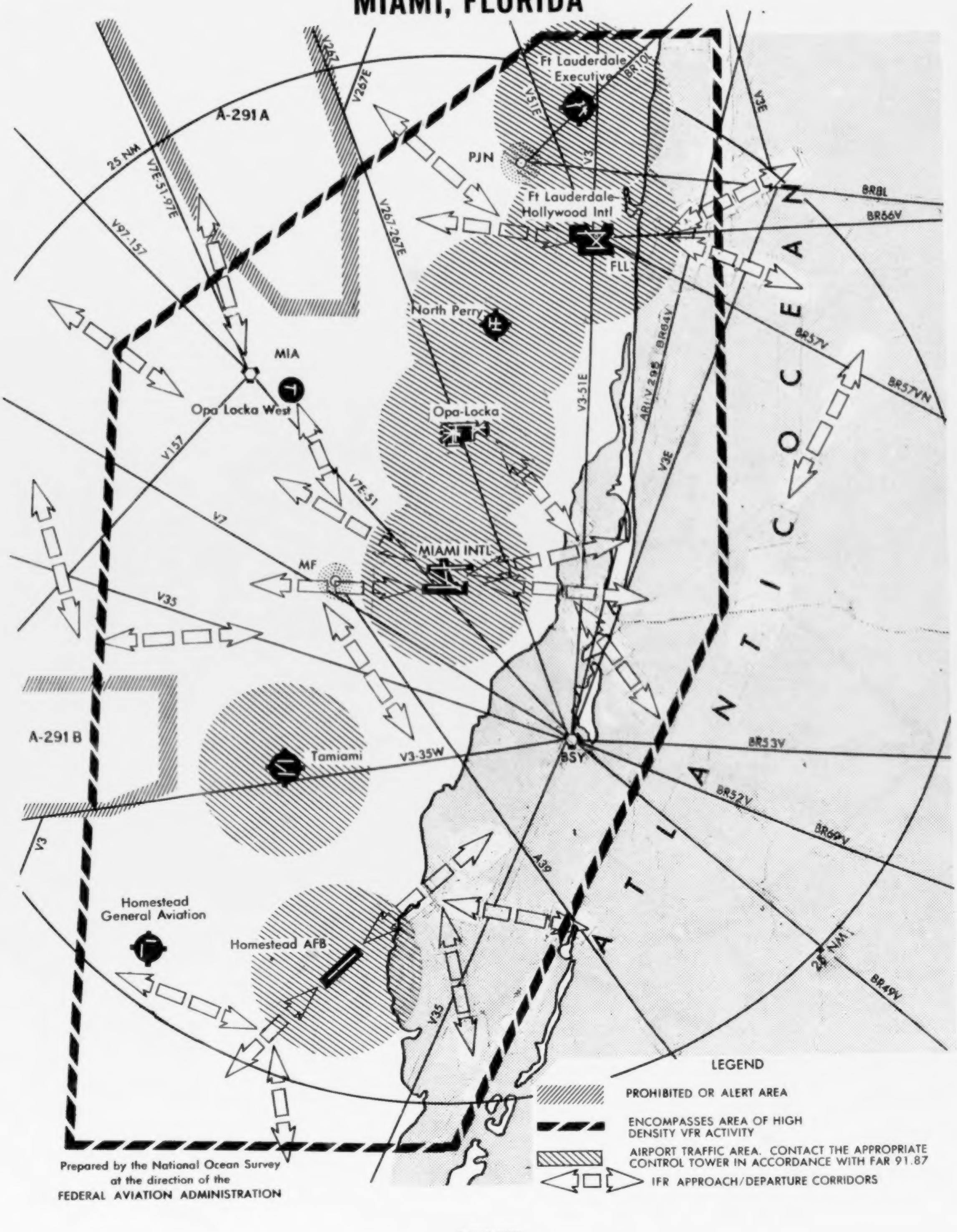

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
Hale Center
V81
27
87
NORTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 119.3 335.6
FL 210
10000 FOR MULTIPLE ILS 17R APPROACHES
V14
PENETRATION AREA 15000 7000
Petersburg
84
V62
Abernathy Muni
SOUTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 118.1 351.8
Anton
LBB
V14S-102
Shallowater
Lorenzo
V14
Idalou
62
82
Ralls
FL 230
A-637
RVO
REESE AFB
LUBBOCK INTL
Smyer
10000 FL 230
Wolfforth
Town & Country
REESE 2 MOA
62
82
Slaton Muni
8000 TO 5000
Woodrow
V102
8000 TO TERRY CO AF AUX.
Ropesville
V62
CLIMBING TO MOA
FL 230
V76-81
87
V76N
84
REESE 4 MOA
DESCENDING FROM MOA
CLIMBING TO MOA
LEGEND
CIVIL TURBOJET ARRIVAL AND DEPARTURES ROUTES
MILITARY TURBOJET DEPARTURE ROUTES
MILITARY TURBOJET ARRIVAL ROUTES
AREA OF HEAVY MILITARY TURBOJET TRAFFIC BELOW 8,000
(ALTITUDE) CLIMBING TO (ALTITUDE)
(ALTITUDE) DESCENDING FROM (ALTITUDE)

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MIAMI, FLORIDA


A-291A
25 NM
V7E-51-97E
V97-157
V267
V267E
V267-267E
Ft Lauderdale Executive
BR10L
V51E
V3
PJN
Ft Lauderdale-Hollywood Intl
FLL
3EA
BR8L
BR56V
North Perry
BR64V
ARLV 295
V3-51E
V3E
BR57V
BR57VN
MIA
Opa Locka West
Opa-Locka
V157
V7E-51
V7
MIAMI INTL
MF
V35
ATLANTIC OCEAN
A-291B
Tamiami
V3-35W
BSY
BR53V
BR52V
BR69V
BR49V
25 NM
V3
A39
Homestead General Aviation
Homestead AFB
V35
LEGEND
PROHIBITED OR ALERT AREA
ENCOMPASSES AREA OF HIGH DENSITY VFR ACTIVITY
AIRPORT TRAFFIC AREA. CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87
IFR APPROACH/DEPARTURE CORRIDORS

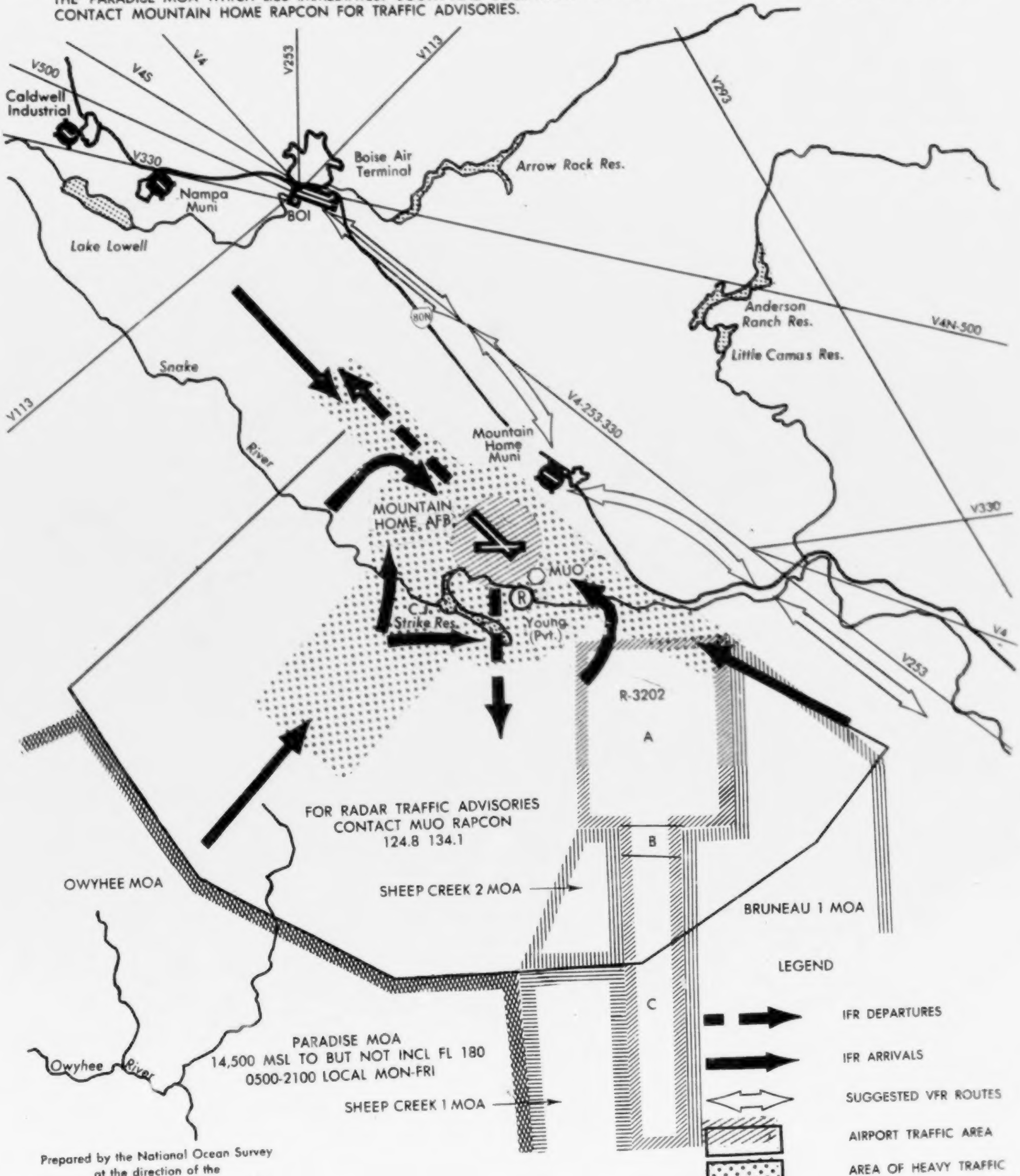
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MOUNTAIN HOME AFB, IDAHO

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING MOUNTAIN HOME AFB FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, OR PROPOSING TO TRANSIT THE PARADISE MOA WHICH LIES IMMEDIATELY SOUTH AND SOUTHWEST OF MOUNTAIN HOME AFB, ARE ENCOURAGED TO CONTACT MOUNTAIN HOME RAPCON FOR TRAFFIC ADVISORIES.


V500
V4S
V4
V253
V113
V293
Caldwell Industrial
V330
Boise Air Terminal
Arrow Rock Res.
Nampa Muni
BOI
Lake Lowell
80N
Anderson Ranch Res.
V4N-500
Little Camas Res.
Snake
River
V113
V4-253-330
Mountain Home Muni
MOUNTAIN HOME AFB
V330
MUO
C.J. Strike Res.
Young (Pvt.)
V4
V253
R-3202
A
B
C
FOR RADAR TRAFFIC ADVISORIES CONTACT MUO RAPCON 124.8 134.1
OWYHEE MOA
SHEEP CREEK 2 MOA
BRUNEAU 1 MOA
Owyhee River
PARADISE MOA
14,500 MSL TO BUT NOT INCL FL 180
0500-2100 LOCAL MON-FRI
SHEEP CREEK 1 MOA
LEGEND
IFR DEPARTURES
IFR ARRIVALS
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

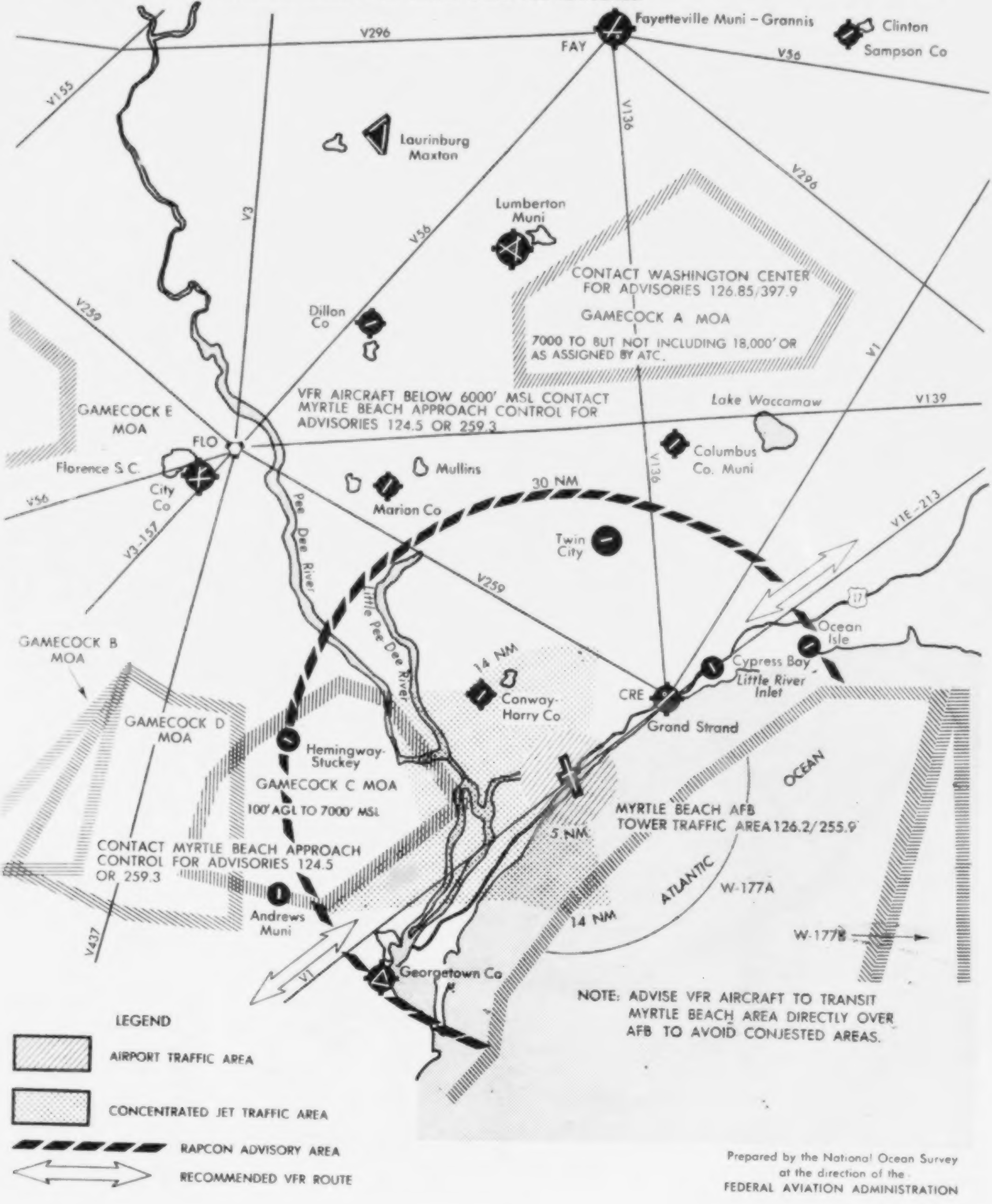
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MYRTLE BEACH AFB, SOUTH CAROLINA

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF A-7D AND T-33 AIRCRAFT OPERATING IN THE VICINITY OF MYRTLE BEACH AFB, SOUTH CAROLINA. VFR PILOTS TRANSITING OR OPERATING WITHIN THE AREA ARE ENCOURAGED TO CONTACT MYRTLE BEACH APPROACH CONTROL OR CENTER RADAR FOR ADVISORIES.


Fayetteville Muni – Grannis
FAY
Clinton
Sampson Co
V296
V56
V155
V136
V296
V3
Laurinburg Maxton
Lumberton Muni
V56
CONTACT WASHINGTON CENTER FOR ADVISORIES 126.85/397.9
GAMECOCK A MOA
7000 TO BUT NOT INCLUDING 18,000' OR AS ASSIGNED BY ATC.
V259
Dillon Co
V1
VFR AIRCRAFT BELOW 6000' MSL CONTACT MYRTLE BEACH APPROACH CONTROL FOR ADVISORIES 124.5 OR 259.3
Lake Waccamaw
V139
GAMECOCK E MOA
FLO
Florence S.C.
City Co
Mullins
Columbus Co. Muni
V136
V56
Marion Co
30 NM
V1E-213
V3-157
Pee Dee River
Twin City
V259
Little Pee Dee River
17
Ocean Isle
GAMECOCK B MOA
14 NM
Cypress Bay
Little River Inlet
Conway-Horry Co
CRE
Grand Strand
GAMECOCK D MOA
Hemingway-Stuckey
OCEAN
GAMECOCK C MOA
100' AGL TO 7000' MSL
MYRTLE BEACH AFB TOWER TRAFFIC AREA 126.2/255.9
5 NM
CONTACT MYRTLE BEACH APPROACH CONTROL FOR ADVISORIES 124.5 OR 259.3
ATLANTIC
W-177A
Andrews Muni
14 NM
W-177B
V437
V1
Georgetown Co
NOTE: ADVISE VFR AIRCRAFT TO TRANSIT MYRTLE BEACH AREA DIRECTLY OVER AFB TO AVOID CONJESTED AREAS.
LEGEND
AIRPORT TRAFFIC AREA
CONCENTRATED JET TRAFFIC AREA
RAPCON ADVISORY AREA
RECOMMENDED VFR ROUTE

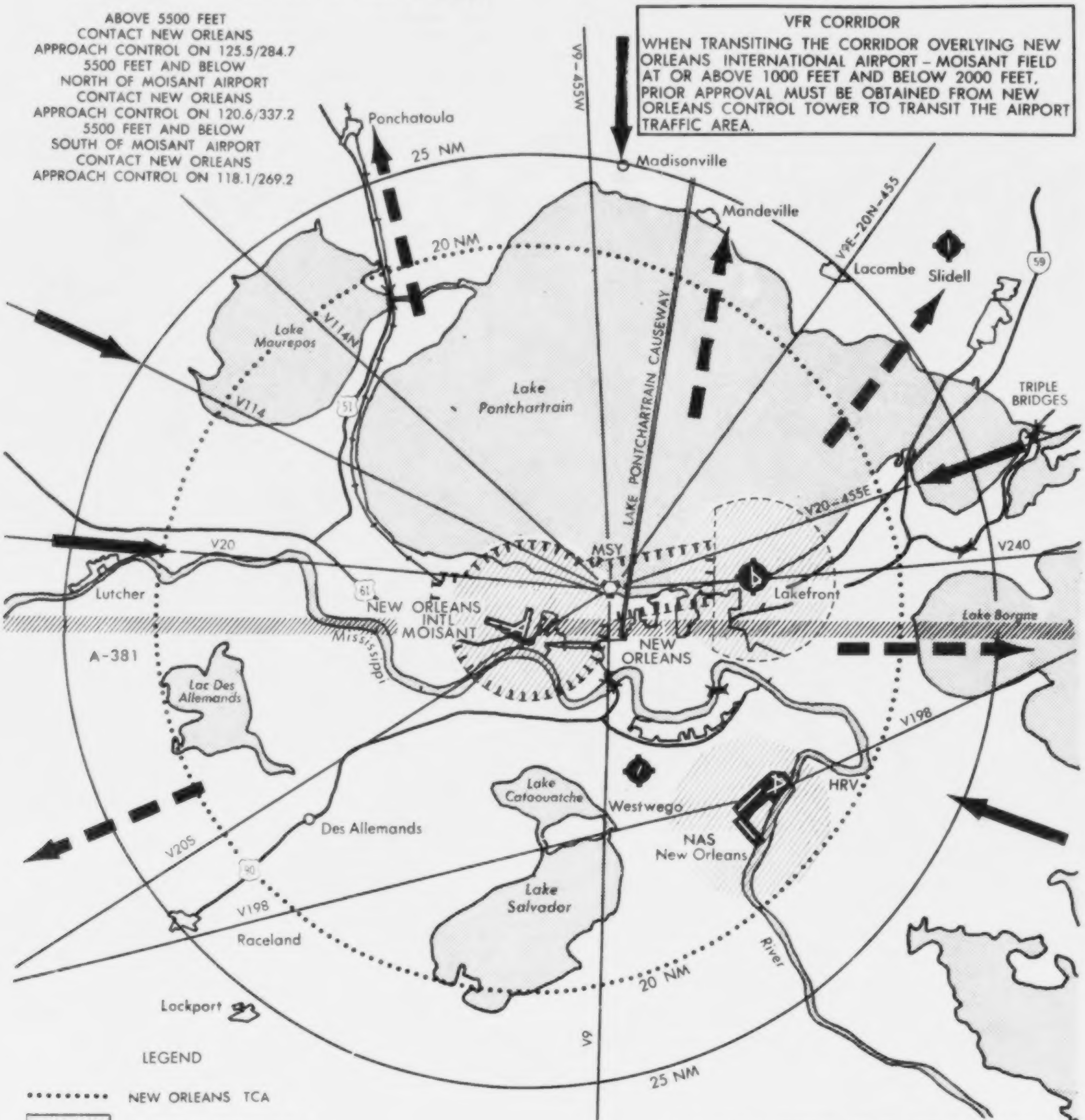
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NCT TO BE USED FOR NAVIGATION)

NEW ORLEANS, LOUISIANA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE NEW ORLEANS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THIS AREA ARE ENCOURAGED TO CONTACT NEW ORLEANS RADAR.



Ponchatoula
25 NM
20 NM
V9-455W
Madisonville
Mandeville
V9E-20N-455
Lacombe
Slidell
59
V114N
Lake Maurepas
V114
51
Lake Pontchartrain
LAKE PONTCHARTRAIN CAUSEWAY
TRIPLE BRIDGES
V20-455E
V20
V240
MSY
Lutcher
61
NEW ORLEANS INTL MOISANT
Lakefront
Lake Borgne
A-381
Mississippi
NEW ORLEANS
Lac Des Allemands
V198
HRV
Lake Cataouatche
Westwego
NAS New Orleans
Des Allemands
V205
90
V198
Lake Salvador
Raceland
River
20 NM
Lockport
V9
25 NM

ABOVE 5500 FEET
CONTACT NEW ORLEANS
APPROACH CONTROL ON 125.5/284.7
5500 FEET AND BELOW
NORTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 120.6/337.2
5500 FEET AND BELOW
SOUTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 118.1/269.2

VFR CORRIDOR

WHEN TRANSITING THE CORRIDOR OVERLYING NEW ORLEANS INTERNATIONAL AIRPORT – MOISANT FIELD AT OR ABOVE 1000 FEET AND BELOW 2000 FEET, PRIOR APPROVAL MUST BE OBTAINED FROM NEW ORLEANS CONTROL TOWER TO TRANSIT THE AIRPORT TRAFFIC AREA.

LEGEND

········· NEW ORLEANS TCA

▨ AIRPORT TRAFFIC AREAS CONTACT THE APPROPRIATE TOWER

← ▬ ▬ ▬ PRIMARY TURBOJET DEPARTURE ROUTES

⟶ PRIMARY TURBOJET ARRIVAL ROUTES

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

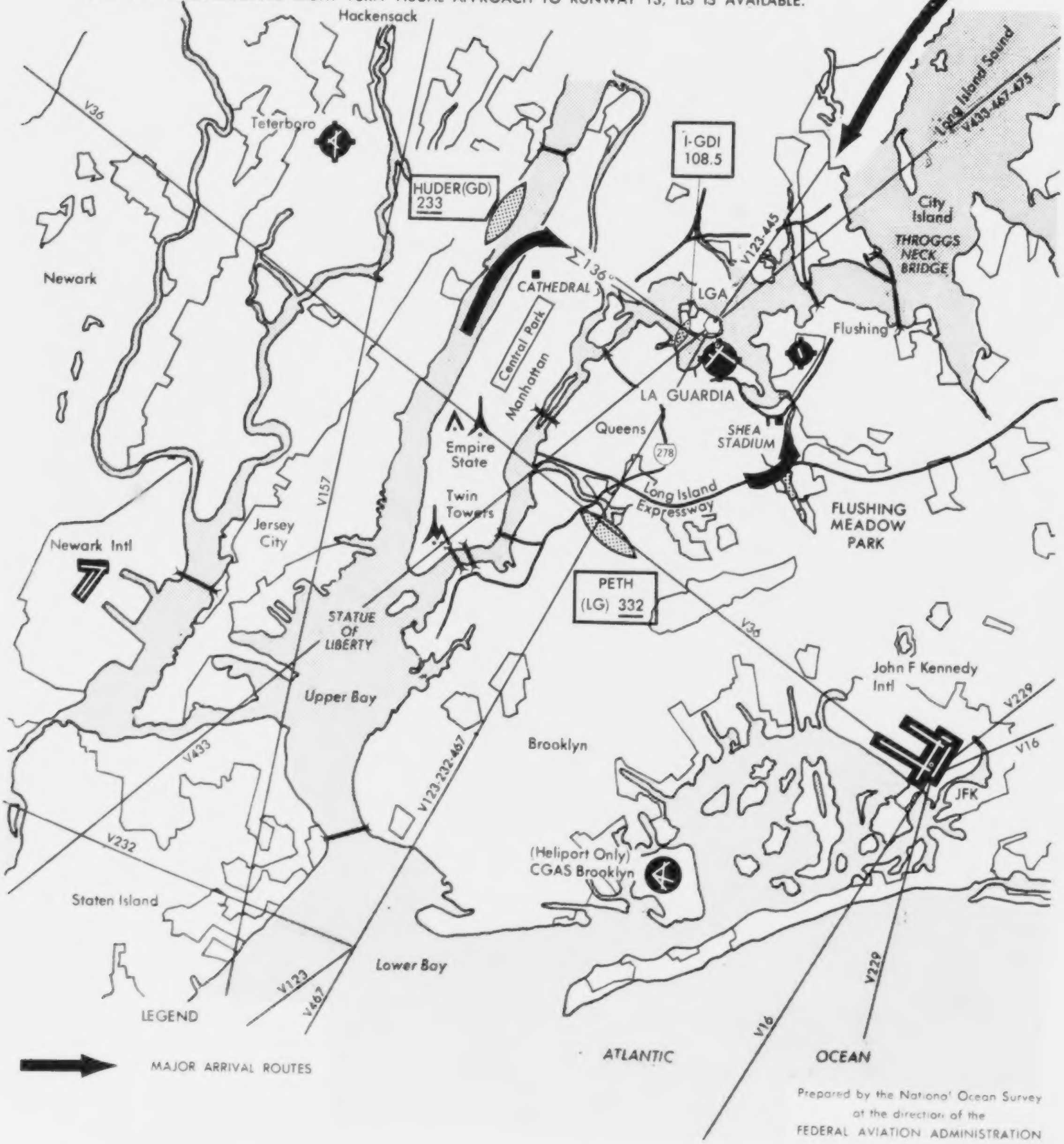
24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW YORK, NY LA GUARDIA AIRPORT

THIS CHART HAS BEEN DEVELOPED TO AID PILOTS CONDUCTING VISUAL APPROACHES TO LA GUARDIA AIRPORT. 1. WHEN CONDUCTING VISUAL APPROACHES IT IS DESIRABLE THAT THE HIGHEST ALTITUDE PRACTICABLE IS MAINTAINED UNTIL DESCENT FOR LANDING IS BEGUN. 2. WHEN APPROACHING FROM THE NORTHEAST (LONG ISLAND SOUND) FLIGHT OVER THE OPEN WATER AREAS SHOULD BE MAINTAINED AS LONG AS POSSIBLE. ADHERENCE TO THE VOR TRACK IS ESSENTIAL TO MEET THE OBJECTIVES OF NOISE ABATEMENT WHEN THE VOR APPROACH IS BEING USED. 3. WHEN APPROACHING TO LAND ON RUNWAY 31, IT IS SUGGESTED THAT A FLIGHT PATH OVER THE FLUSHING MEADOW (OLD WORLD'S FAIR GROUNDS) BE MAINTAINED AS LONG AS FEASIBLE.

NOTE: WHEN CONDUCTING RIGHT TURN VISUAL APPROACH TO RUNWAY 13, ILS IS AVAILABLE.


Hackensack
Teterboro
Long Island Sound
V435-467-475
I-GDI
108.5
HUDER(GD)
233
V123-445
City Island
THROGGS NECK BRIDGE
Newark
136°
CATHEDRAL
LGA
Flushing
Central Park
Manhattan
LA GUARDIA
Queens
278
SHEA STADIUM
Empire State
Long Island Expressway
FLUSHING MEADOW PARK
V157
Twin Towers
Jersey City
Newark Intl
PETH
(LG) 332
V36
STATUE OF LIBERTY
Upper Bay
John F Kennedy Intl
V229
V16
JFK
Brooklyn
V433
V123-232-467
V232
(Heliport Only)
CGAS Brooklyn
Staten Island
Lower Bay
V123
V467
V229
V16
LEGEND
MAJOR ARRIVAL ROUTES
ATLANTIC
OCEAN

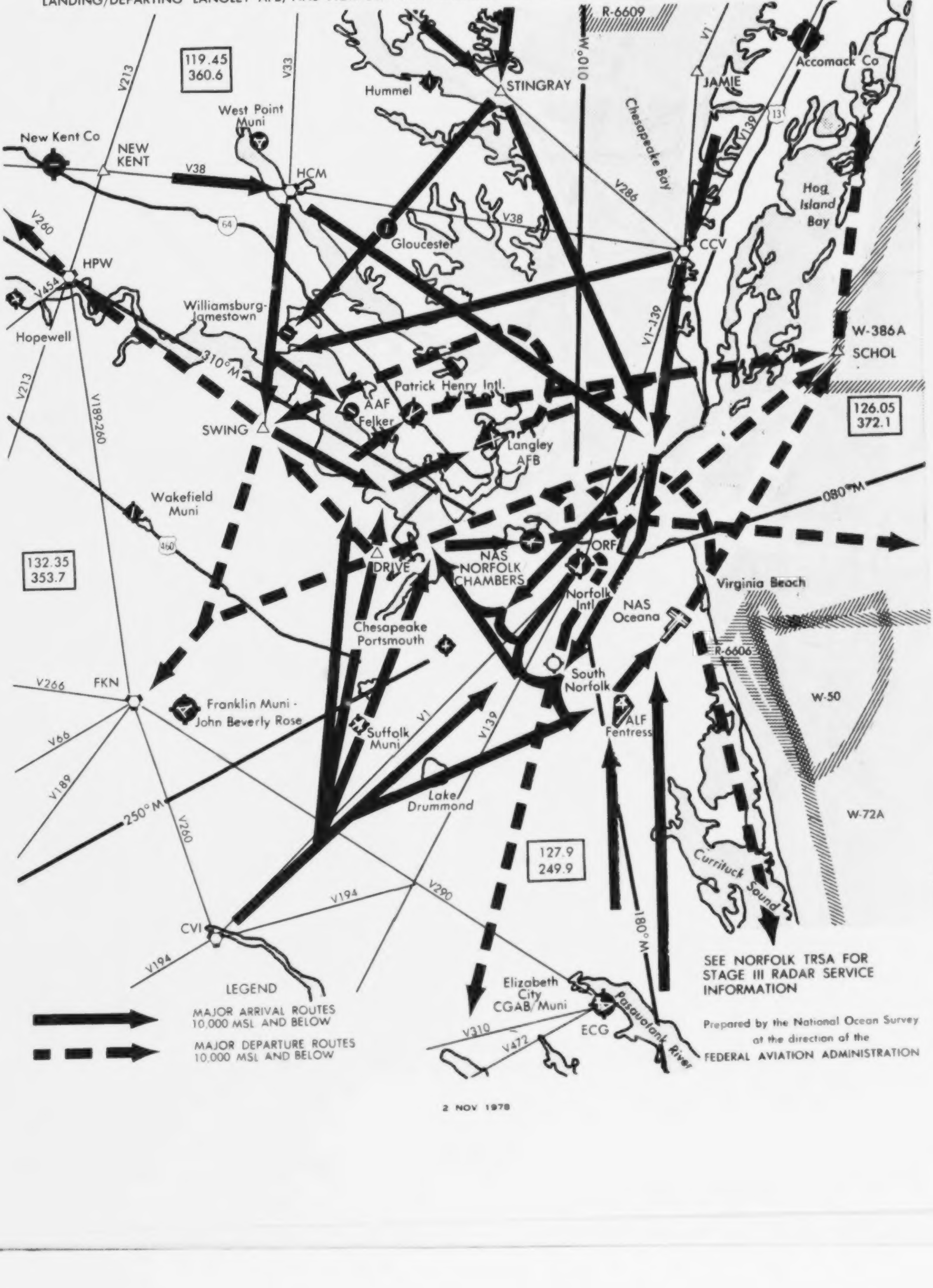
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE NORFOLK TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT NORFOLK APPROACH CONTROL. THIS TRAFFIC ADVISORY DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. STAGE III RADAR SERVICE IS AVAILABLE FOR VFR AIRCRAFT LANDING/DEPARTING LANGLEY AFB, NAS NORFOLK AND NORFOLK INTERNATIONAL AIRPORT.


R-6609
010°M
V1
V213
V33
119.45
360.6
Hummel
STINGRAY
JAMIE
Accomack Co
Chesapeake Bay
V139
13
West Point Muni
New Kent Co
NEW KENT
V38
HCM
V286
Hog Island Bay
64
V38
V260
HPW
Gloucester
CCV
V454
Williamsburg-Jamestown
Hopewell
V1-139
W-386A
SCHOL
310°M
V213
AAF Felker
Patrick Henry Intl.
126.05
372.1
V189-260
SWING
Langley AFB
Wakefield Muni
080°M
460
132.35
353.7
DRIVE
NAS NORFOLK CHAMBERS
ORF
Norfolk Intl
NAS Oceana
Virginia Beach
Chesapeake Portsmouth
R-6606
V266
FKN
South Norfolk
W-50
Franklin Muni - John Beverly Rose
V1
ALF Fentress
V66
Suffolk Muni
V139
V189
250°M
Lake Drummond
W-72A
V260
127.9
249.9
Currituck Sound
V194
V290
180°M
CVI
V194
Elizabeth City CGAB/Muni
Pasquotank River
V310
V472
ECG

SEE NORFOLK TRSA FOR STAGE III RADAR SERVICE INFORMATION

LEGEND

➡	MAJOR ARRIVAL ROUTES 10,000 MSL AND BELOW
▬ ▬ ➡	MAJOR DEPARTURE ROUTES 10,000 MSL AND BELOW

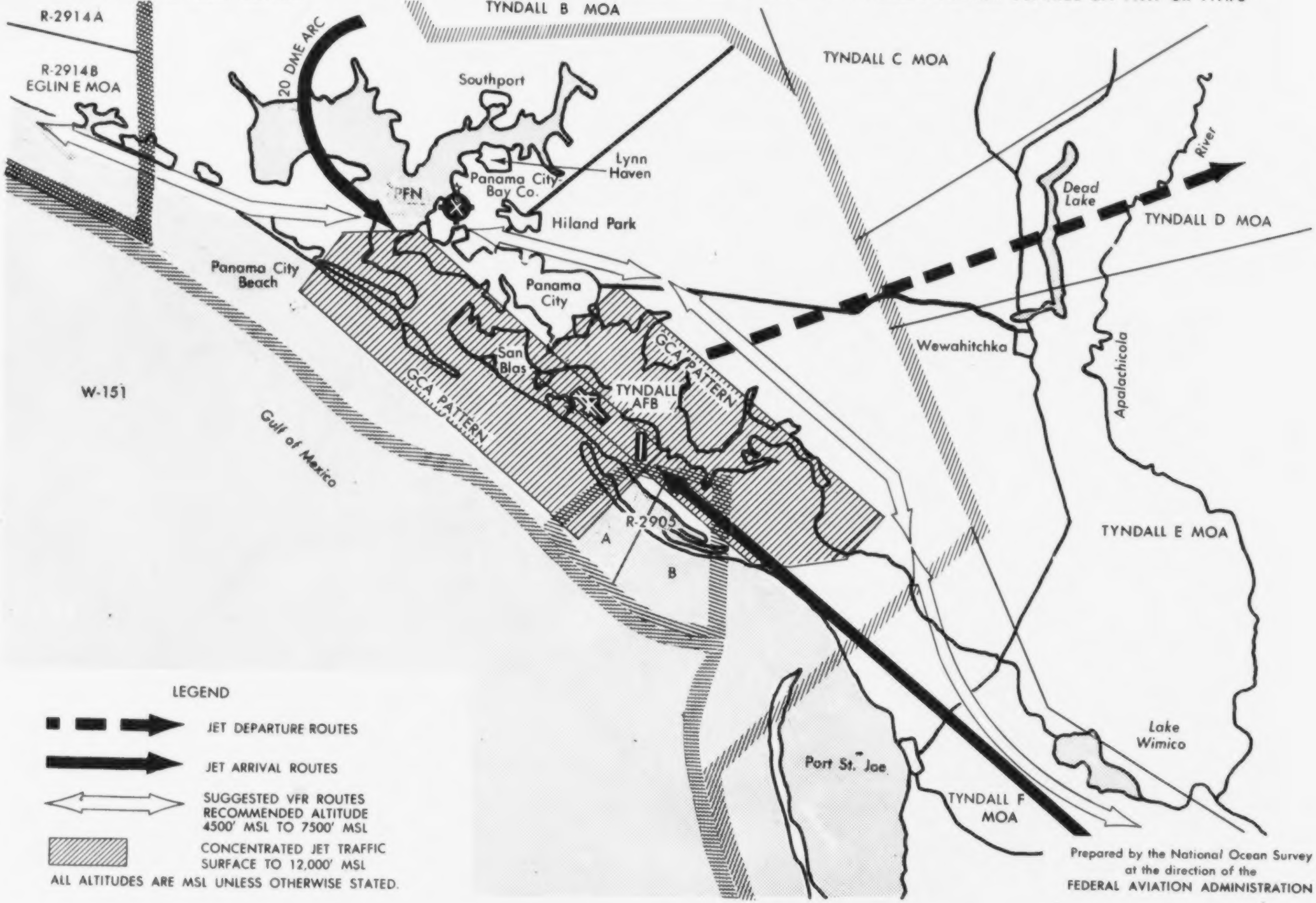
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PANAMA CITY, TYNDALL AFB, FLA.

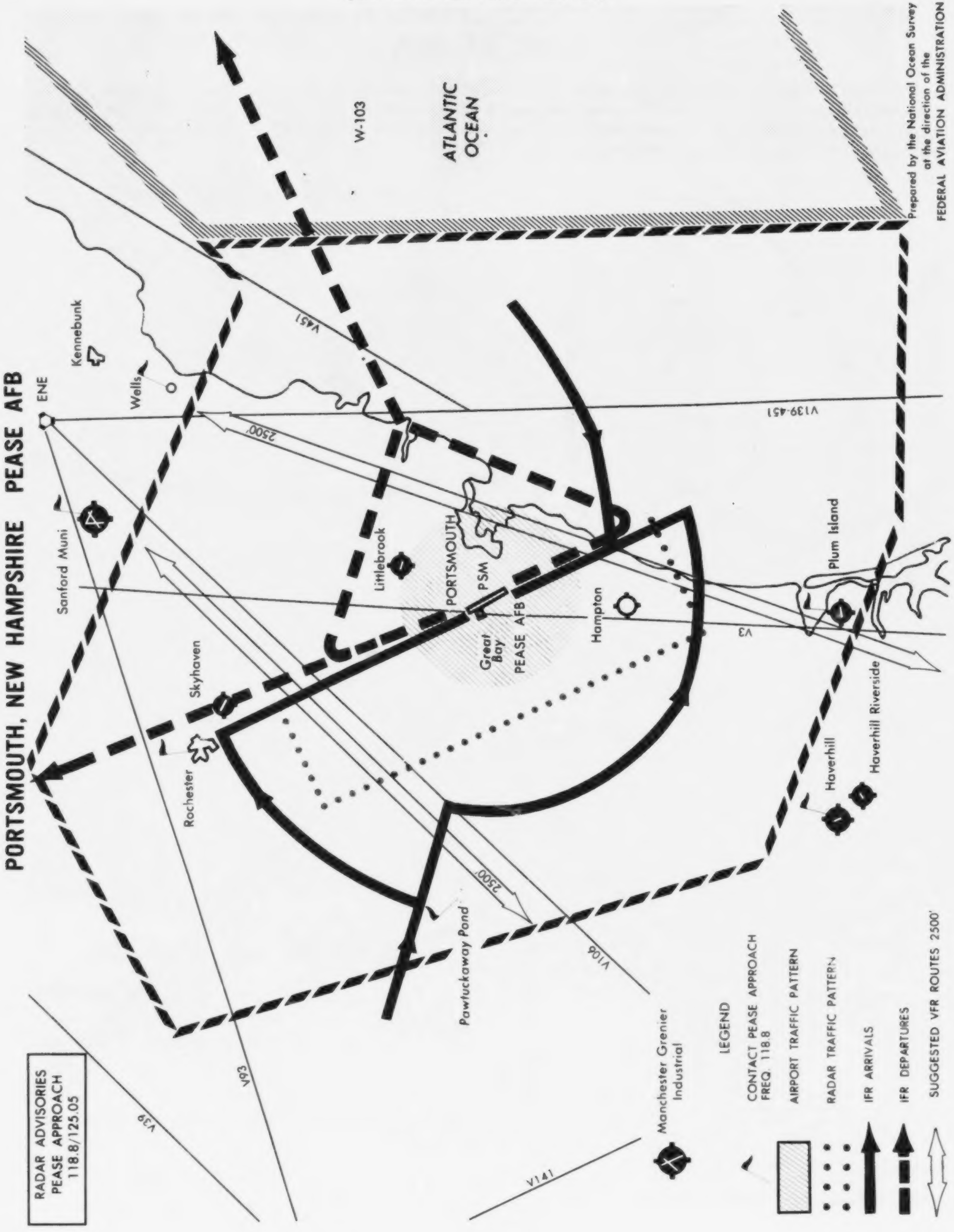
THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET AIRCRAFT TRAFFIC OPERATING IN VICINITY OF TYNDALL AFB, FLA. MANNED/UNMANNED DRONE OPERATIONS ARE CONDUCTED FROM SATELLITE DRONE RUNWAY 18/36 LOCATED 3.0 STATUTE MILES S/SE OF MAIN AIRFIELD DURING DAYLITE HOURS. VFR AIRCRAFT OVERFLYING THE AREA OR LANDING AT PANAMA CITY AIRPORT ARE URGED TO CONTACT TYNDALL APPROACH CONTROL ON 119.1 OR 119.75 FOR RADAR ADVISORY SERVICE.


R-2914A
R-2914B
EGLIN E MOA
20 DME ARC
TYNDALL B MOA
TYNDALL C MOA
TYNDALL D MOA
TYNDALL E MOA
TYNDALL F MOA
Southport
Lynn Haven
Panama City Bay Co.
PFN
Hiland Park
Panama City Beach
Panama City
San Blas
TYNDALL AFB
GCA PATTERN
GCA PATTERN
R-2905
A
B
W-151
Gulf of Mexico
Dead Lake
River
Apalachicola
Wewahitchka
Port St. Joe
Lake Wimico
LEGEND
JET DEPARTURE ROUTES
JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES RECOMMENDED ALTITUDE 4500' MSL TO 7500' MSL
CONCENTRATED JET TRAFFIC SURFACE TO 12,000' MSL
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)



PORTSMOUTH, NEW HAMPSHIRE PEASE AFB

RADAR ADVISORIES
PEASE APPROACH
118.8/125.05

LEGEND

- CONTACT PEASE APPROACH FREQ. 118.8
- ▨ AIRPORT TRAFFIC PATTERN
- • • • RADAR TRAFFIC PATTERN
- IFR ARRIVALS
- IFR DEPARTURES
- ⇔ SUGGESTED VFR ROUTES 2500'

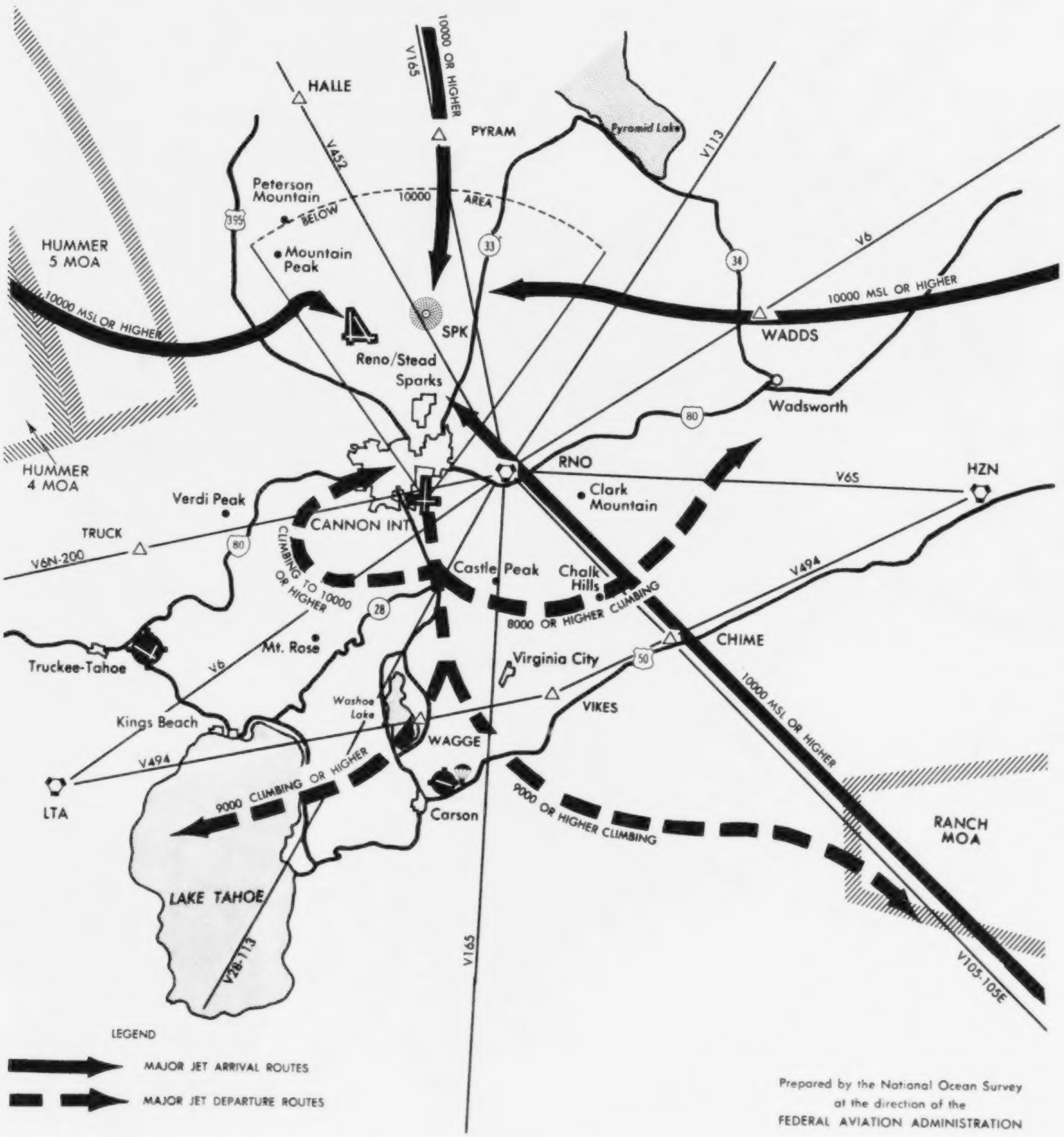
ENE
Kennebunk
Wells
Sanford Muni
V451
V139-451
2500'
W-103
ATLANTIC OCEAN
Littlebrook
PORTSMOUTH
PSM
Great Bay
PEASE AFB
Hampton
Plum Island
V3
Skyhaven
Rochester
Haverhill
Haverhill Riverside
2500'
Pawtuckaway Pond
V106
V93
V39
V141
Manchester Grenier Industrial

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

RENO, NEVADA

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. FOR STAGE II SERVICES, AIRCRAFT LANDING AT RENO OR STEAD MONITOR ATIS ON 125.8 25 NM OUT FOR FREQUENCY ASSIGNMENT. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.



V165
10000 OR HIGHER
HALLE
PYRAM
Pyramid Lake
V452
V113
Peterson Mountain
10000 AREA
BELOW
395
33
34
V6
HUMMER 5 MOA
Mountain Peak
10000 MSL OR HIGHER
10000 MSL OR HIGHER
SPK
WADDS
Reno/Stead
Sparks
Wadsworth
80
HUMMER 4 MOA
RNO
HZN
V6S
Clark Mountain
Verdi Peak
CANNON INT
TRUCK
V6N-200
80
CLIMBING TO 10000 OR HIGHER
Castle Peak
Chalk Hills
V494
28
8000 OR HIGHER CLIMBING
CHIME
Mt. Rose
Virginia City
50
Truckee-Tahoe
V6
10000 MSL OR HIGHER
Washoe Lake
VIKES
Kings Beach
WAGGE
V494
LTA
9000 CLIMBING OR HIGHER
Carson
9000 OR HIGHER CLIMBING
RANCH MOA
LAKE TAHOE
V28-113
V165
V105-105E
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES

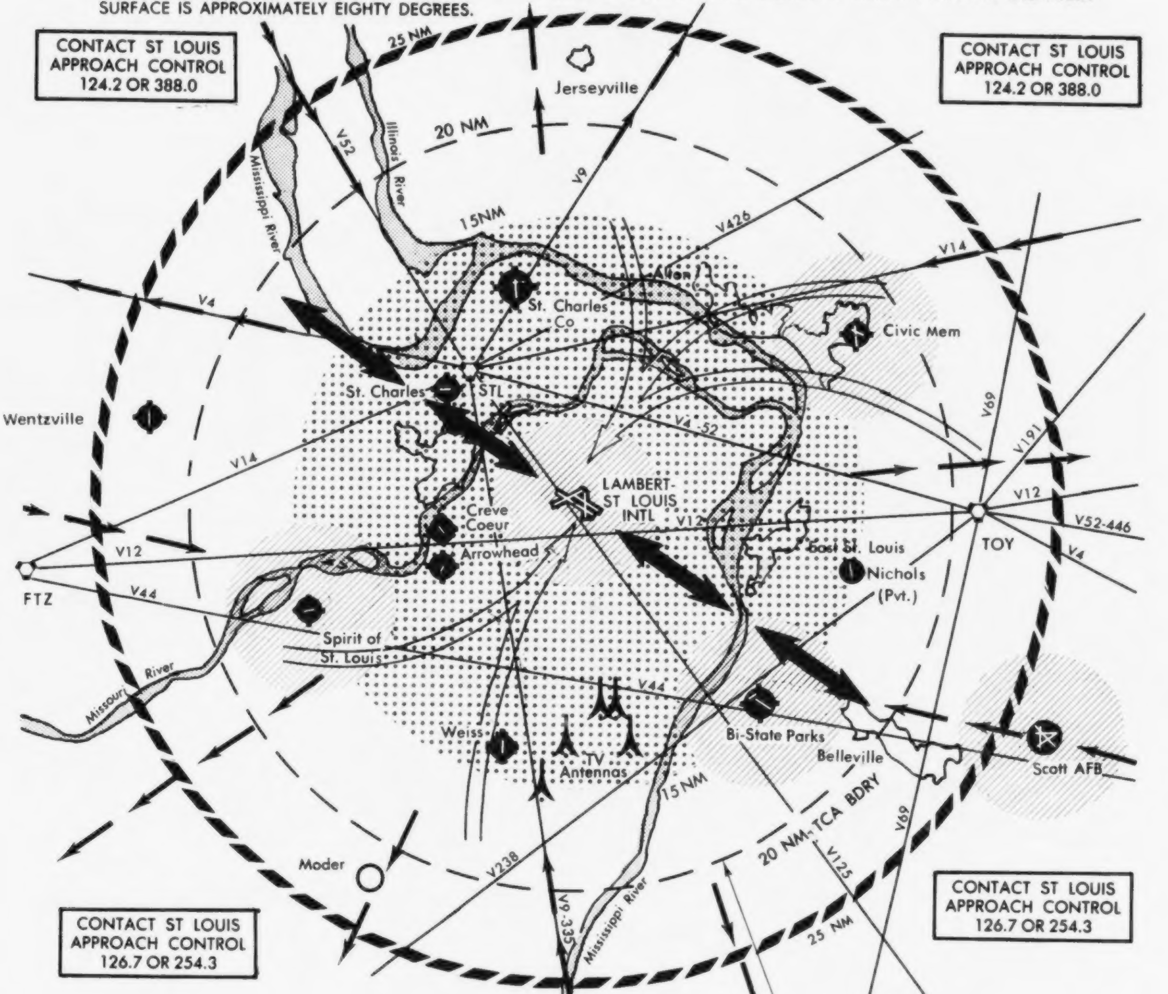
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ST. LOUIS, MISSOURI

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE ST. LOUIS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT ST. LOUIS RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC. HIGH PERFORMANCE FIGHTER TYPE JET AIRCRAFT DEPARTING MAXIMUM CLIMB ABOVE 8000 FEET, FIVE NAUTICAL MILE RADIUS OF AIRPORT. PITCH ANGLE FROM SURFACE IS APPROXIMATELY EIGHTY DEGREES.


25 NM
20 NM
15NM
V52
Illinois River
Mississippi River
Jerseyville
V9
V426
V14
Alton
St. Charles Co
Civic Mem
V4
Wentzville
St. Charles
STL
V4-52
V69
V191
LAMBERT-ST LOUIS INTL
V12
TOY
V52-446
V4
Creve Coeur
Arrowhead
East St. Louis
Nichols (Pvt.)
FTZ
V44
Spirit of St. Louis
Missouri River
Weiss
TV Antennas
Bi-State Parks
Belleville
Scott AFB
15 NM
20 NM-TCA BDRY
V69
V125
Moder
V238
V9-335
Mississippi River
25 NM
Festus Mem

CONTACT ST LOUIS
APPROACH CONTROL
124.2 OR 388.0

CONTACT ST LOUIS
APPROACH CONTROL
124.2 OR 388.0

CONTACT ST LOUIS
APPROACH CONTROL
126.7 OR 254.3

CONTACT ST LOUIS
APPROACH CONTROL
126.7 OR 254.3

SEE ST LOUIS VFR TERMINAL AREA CHART FOR ADDITIONAL INFORMATION

LEGEND

⟺ IFR CORRIDORS

→ → NORMAL ROUTE FOR IFR TRAFFIC

⇒ RECOMMENDED VFR CORRIDORS/ROUTES FOR RUNWAYS 12/30

▨ AIRPORT TRAFFIC AREA - CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87

⠿ AREA OF HEAVY TRAFFIC BETWEEN 5 NM AND 15 NM FROM 2400' TO 8000' MSL

▬ ▬ AREA OF HEAVY TRAFFIC BETWEEN 15 NM AND 25 NM FROM 5000' TO 10,000' MSL

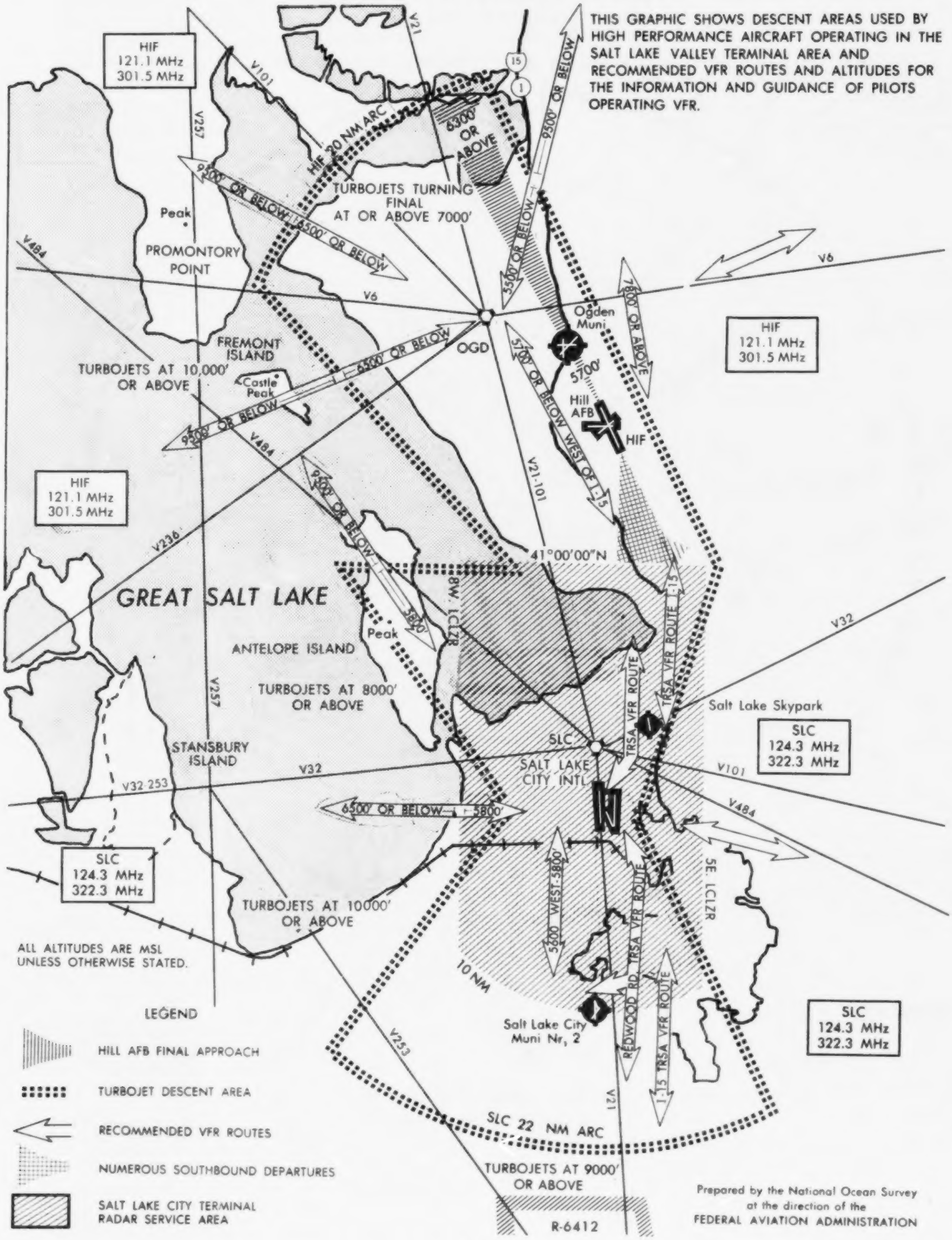
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)
SALT LAKE VALLEY, UTAH

THIS GRAPHIC SHOWS DESCENT AREAS USED BY HIGH PERFORMANCE AIRCRAFT OPERATING IN THE SALT LAKE VALLEY TERMINAL AREA AND RECOMMENDED VFR ROUTES AND ALTITUDES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR.


HIF
121.1 MHz
301.5 MHz
V21
V101
V257
15
1
HIF 20 NM ARC
6300' OR ABOVE
9500' OR BELOW
9500' OR BELOW
6500' OR BELOW
TURBOJETS TURNING FINAL AT OR ABOVE 7000'
Peak
PROMONTORY POINT
V484
V6
3500' OR BELOW
6000' OR ABOVE
Ogden Muni
OGD
FREMONT ISLAND
TURBOJETS AT 10,000' OR ABOVE
Castle Peak
6500' OR BELOW
9500' OR BELOW
5700'
5700' OR BELOW WEST OF I-15
Hill AFB
HIF
V21-101
9500' OR BELOW
V236
41°00'00"N
GREAT SALT LAKE
5800'
8W. LCLZR
Peak
ANTELOPE ISLAND
TURBOJETS AT 8000' OR ABOVE
TRSA VFR ROUTE
TRSA VFR ROUTE I-15
Salt Lake Skypark
V32
SLC
124.3 MHz
322.3 MHz
STANSBURY ISLAND
SLC
SALT LAKE CITY INTL
V32 253
V101
V484
6500' OR BELOW
5800'
5600 WEST-5800'
TRSA VFR ROUTE
5E. LCLZR
SLC
124.3 MHz
322.3 MHz
TURBOJETS AT 10000' OR ABOVE
10 NM
REDWOOD RD. TRSA VFR ROUTE
Salt Lake City Muni Nr, 2
I-15 TRSA VFR ROUTE
SLC
124.3 MHz
322.3 MHz
V253
V21
SLC 22 NM ARC
TURBOJETS AT 9000' OR ABOVE
R-6412

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

LEGEND

- ▥ HILL AFB FINAL APPROACH
- ▪▪▪ TURBOJET DESCENT AREA
- ⇐ RECOMMENDED VFR ROUTES
- ░ NUMEROUS SOUTHBOUND DEPARTURES
- ▨ SALT LAKE CITY TERMINAL RADAR SERVICE AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

2 NOV 1978

TERMINAL AREA GRAPHIC NOTICE

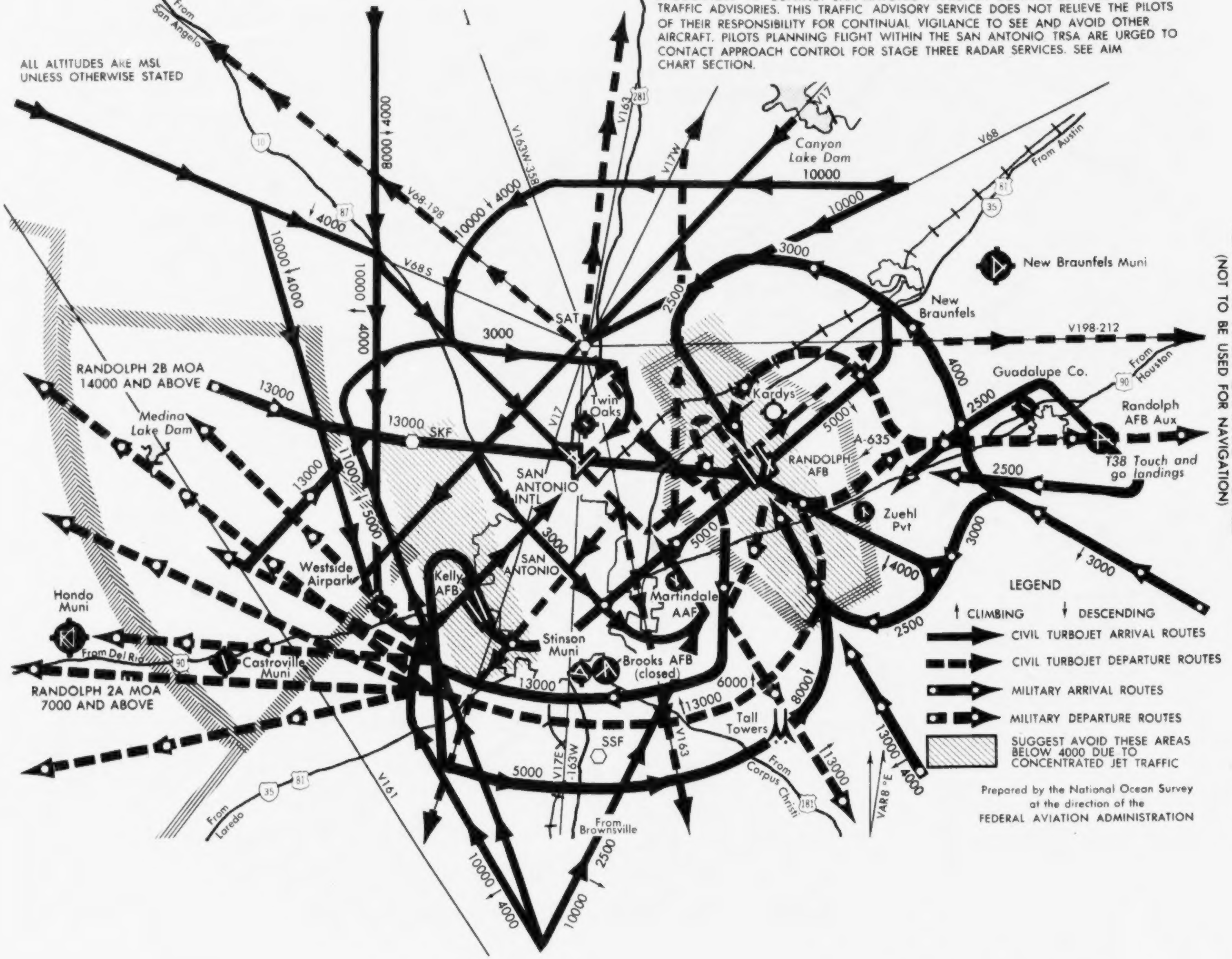
(NOT TO BE USED FOR NAVIGATION)

SAN ANT O, TEXAS

RANDOLPH AFB T-37/T-38 ARRIVAL/DEPARTURE ROUTES AND CIVIL TURBOJET ARRIVAL/DEPARTURE ROUTES FOR SAN ANTONIO INTERNATIONAL

HIGH VOLUME OF JET OPERATIONS ALONG ROUTES INDICATED VFR PILOTS ARE ENCOURAGED TO CONTACT SAN ANTONIO APPROACH CONTROL 25 MILES OUT FOR TRAFFIC ADVISORIES. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. PILOTS PLANNING FLIGHT WITHIN THE SAN ANTONIO TRSA ARE URGED TO CONTACT APPROACH CONTROL FOR STAGE THREE RADAR SERVICES. SEE AIM CHART SECTION.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

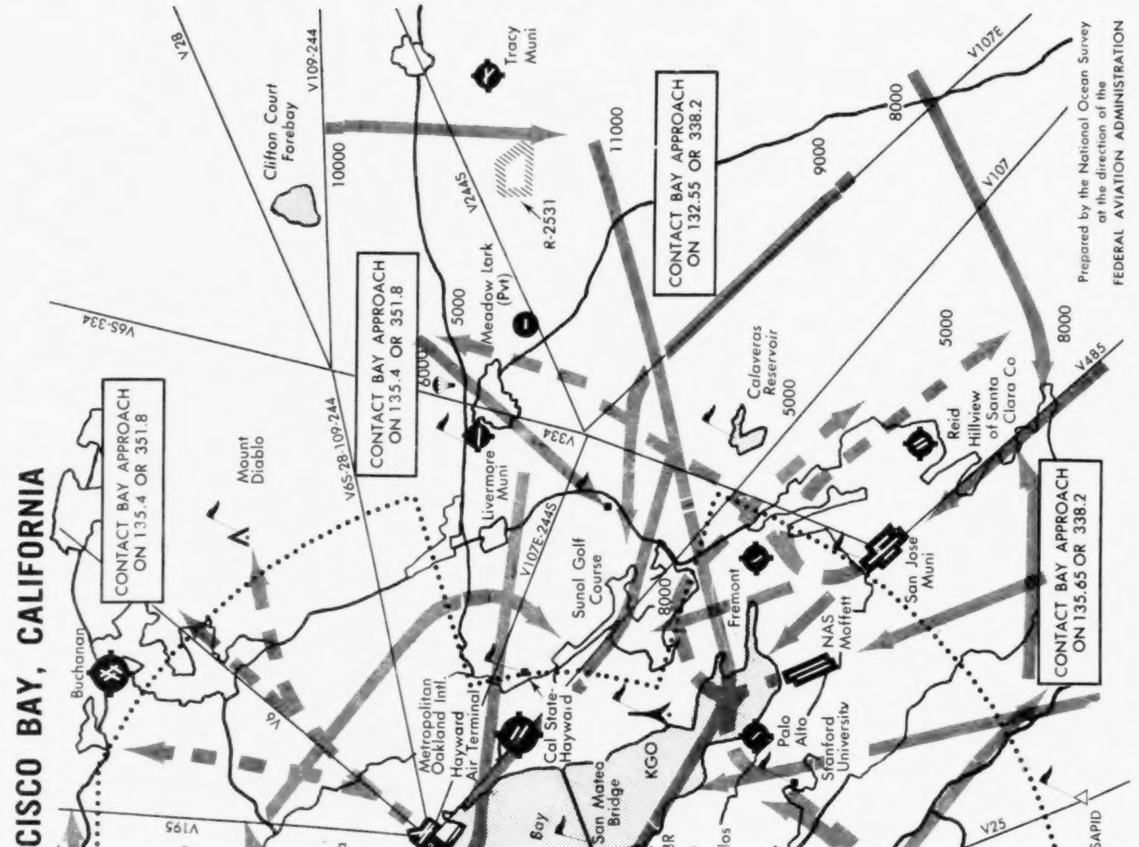

From San Angelo
10
87
8000 ↓ 4000
V163W-358
V68-198
V68S
10000 ↓ 4000
10000 ↓ 4000
10000 ↓ 4000
SAT
V163
281
V17W
V17
Canyon Lake Dam
10000
10000
3000
V68
From Austin
81
35
New Braunfels Muni
New Braunfels
V198-212
From Houston
90
Guadalupe Co.
Randolph AFB Aux
T38 Touch and go landings
2500
4000
2500
3000
RANDOLPH 2B MOA 14000 AND ABOVE
Medina Lake Dam
13000
13000 SKF
13000
11000 ↓ 5000
Twin Oaks
Kardys
5000
A-635
RANDOLPH AFB
Zuehl Pvt
SAN ANTONIO INTL
SAN ANTONIO
3000
5000
Westside Airpark
Kelly AFB
Martindale AAF
↓4000
3000
↓3000
2500
Hondo Muni
From Del Rio
90
Castroville Muni
Stinson Muni
Brooks AFB (closed)
RANDOLPH 2A MOA 7000 AND ABOVE
13000
6000
13000
8000
Tall Towers
13000
13000 ↓ 4000
VAR8 °E
V17E
-163W
SSF
V163
5000
From Corpus Christi
181
V161
From Laredo
35
81
From Brownsville
10000 ↓ 4000
10000 2500
LEGEND
↑ CLIMBING
↓ DESCENDING
CIVIL TURBOJET ARRIVAL ROUTES
CIVIL TURBOJET DEPARTURE ROUTES
MILITARY ARRIVAL ROUTES
MILITARY DEPARTURE ROUTES
SUGGEST AVOID THESE AREAS BELOW 4000 DUE TO CONCENTRATED JET TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

SAN FRANCISCO BAY, CALIFORNIA


CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 132.55 OR 338.2
CONTACT BAY APPROACH ON 135.65 OR 338.2
CONTACT BAY APPROACH ON 120.9 OR 323.2
CONTACT BAY APPROACH ON 124.4 OR 307.2
V28
V109-244
Clifton Court Forebay
10000
Tracy Muni
V244S
R-2531
11000
V107E
8000
9000
V107
Meadow Lark (Pvt)
5000
6000
V6S-334
V6S-28-109-244
Mount Diablo
Livermore Muni
V334
Calaveras Reservoir
5000
5000
Reid Hillview of Santa Clara Co
8000
V485
Sunol Golf Course
V107E-244S
8000
Fremont
San Jose Muni
NAS Moffett
Buchanan
V6
Metropolitan Oakland Intl.
Hayward Air Terminal
Cal State-Hayward
San Mateo Bridge
KGO
Palo Alto
Stanford University
V195
4000
NAS Alameda
San Francisco Bay
Hunters Point
KNBR
San Carlos
SAPID
V25
5000
RICHMOND
V87
Lake Merced
SAN FRANCISCO INTL
Bay Meadows
Crystal Springs Causeway
OSI
9000
V150
Crissy AHP
H
6000
SAU
Golden Gate Bridge
Half Moon Bay
V27
V107
V25-150-199
V25-27
V199
PACIFIC OCEAN

LEGEND

SAN FRANCISCO TCA 6000

VFR CHECK POINT

ARRIVALS

DEPARTURES

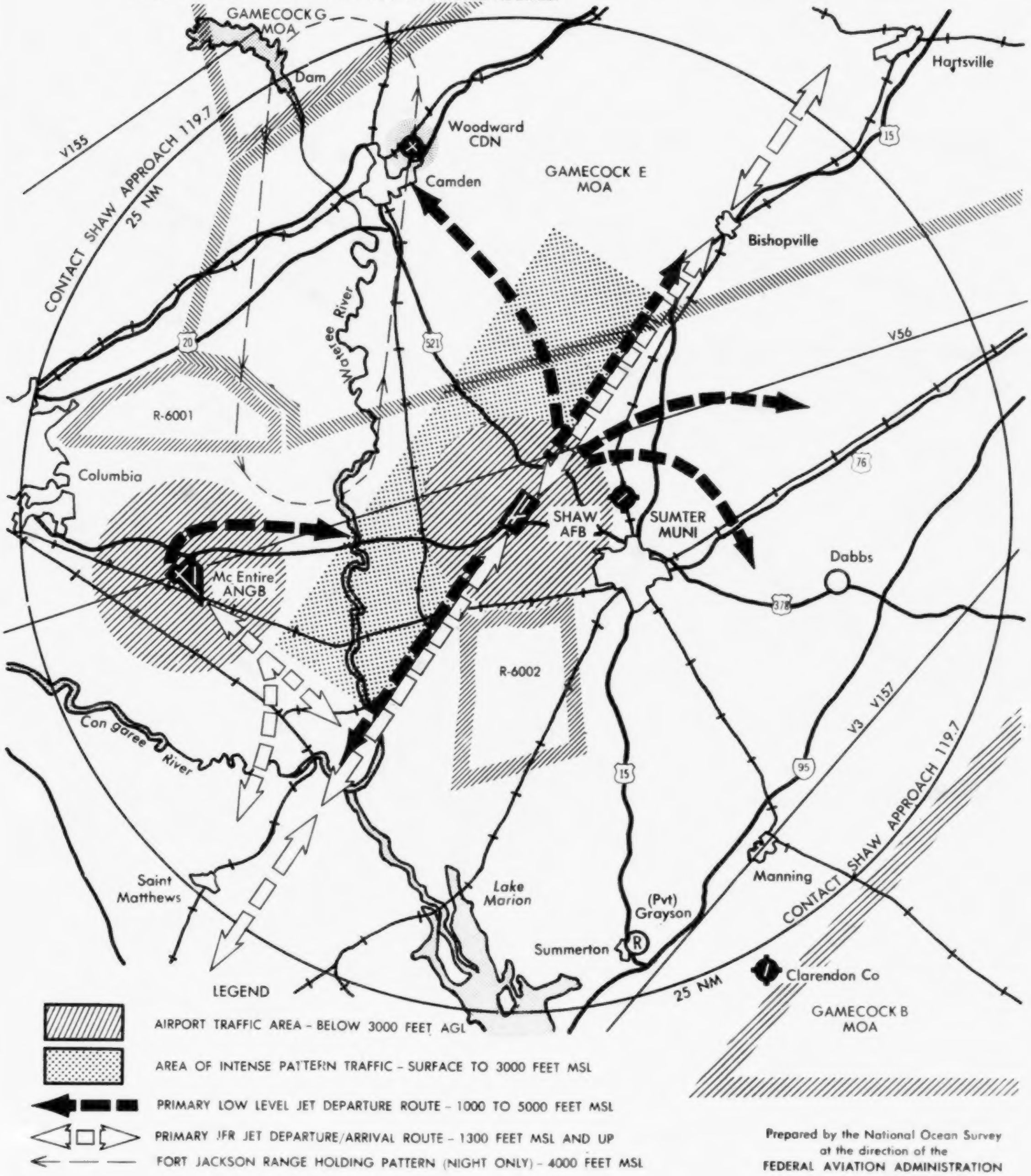
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SHAW AFB SOUTH CAROLINA

THIS MAP SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE SHAW TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA AT OR BELOW 6000 FEET MSL ARE ENCOURAGED TO CONTACT SHAW APPROACH CONTROL ON 119.7 FOR TRAFFIC ADVISORIES.

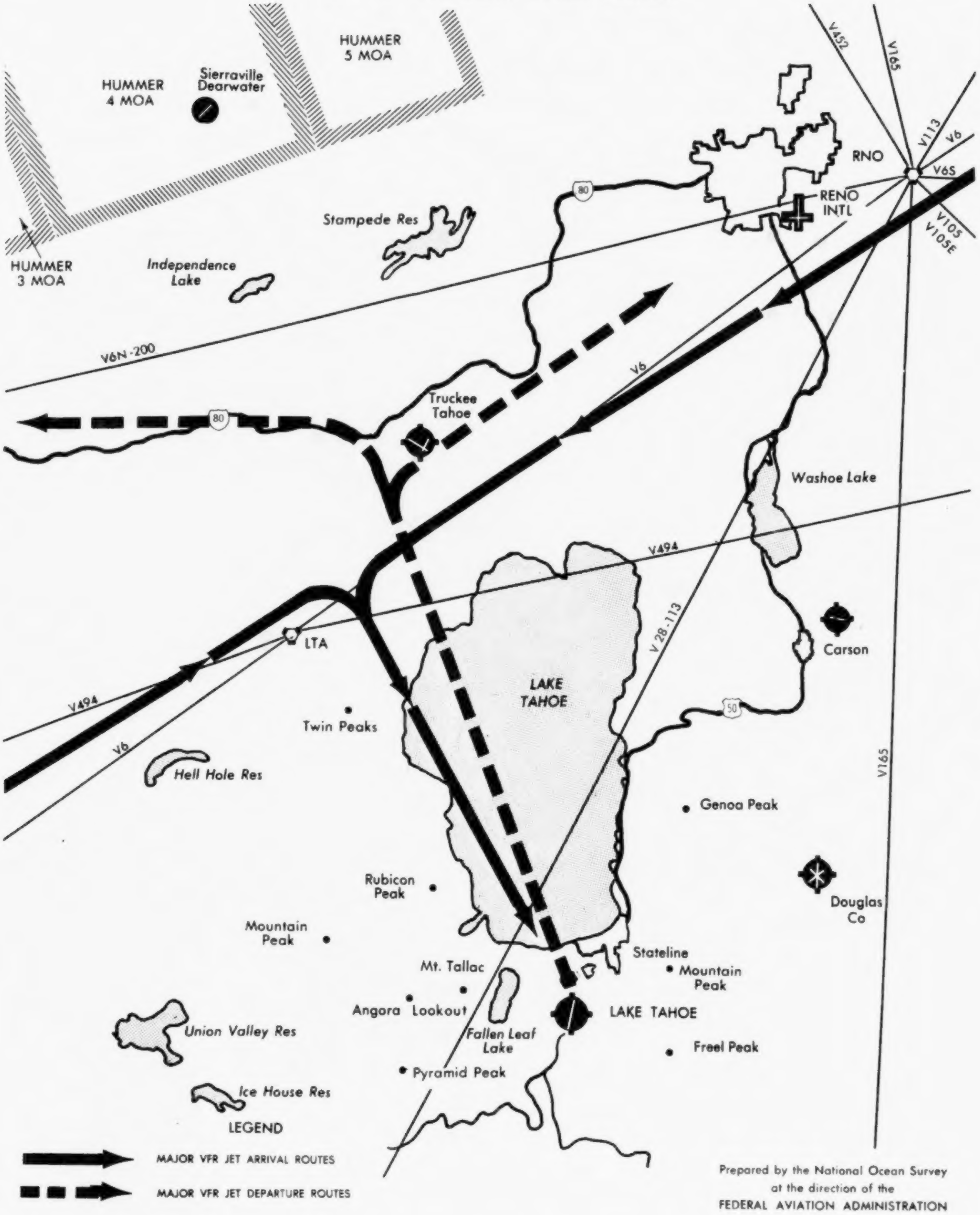

GAMECOCK G MOA
Dam
V155
CONTACT SHAW APPROACH 119.7
25 NM
Woodward CDN
Camden
GAMECOCK E MOA
Hartsville
15
Bishopville
V56
20
Wateree River
521
R-6001
Columbia
76
SHAW AFB
SUMTER MUNI
Dabbs
378
Mc Entire ANGB
R-6002
Con garee River
15
95
V3 V157
CONTACT SHAW APPROACH 119.7
Saint Matthews
Lake Marion
(Pvt) Grayson
Manning
Summerton
25 NM
Clarendon Co
GAMECOCK B MOA
LEGEND
AIRPORT TRAFFIC AREA - BELOW 3000 FEET AGL
AREA OF INTENSE PATTERN TRAFFIC - SURFACE TO 3000 FEET MSL
PRIMARY LOW LEVEL JET DEPARTURE ROUTE - 1000 TO 5000 FEET MSL
PRIMARY IFR JET DEPARTURE/ARRIVAL ROUTE - 1300 FEET MSL AND UP
FORT JACKSON RANGE HOLDING PATTERN (NIGHT ONLY) - 4000 FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAHOE VALLEY, CALIFORNIA


HUMMER 5 MOA
HUMMER 4 MOA
Sierraville Dearwater
HUMMER 3 MOA
V452
V165
V113
V6
RNO
V6S
V105
V105E
RENO INTL
80
Stampede Res
Independence Lake
V6N-200
V6
Truckee Tahoe
80
Washoe Lake
V494
V28-113
Carson
LTA
V494
V6
LAKE TAHOE
Twin Peaks
50
V165
Hell Hole Res
Genoa Peak
Rubicon Peak
Douglas Co
Mountain Peak
Stateline
Mountain Peak
Mt. Tallac
Angora Lookout
LAKE TAHOE
Fallen Leaf Lake
Union Valley Res
Freel Peak
Pyramid Peak
Ice House Res
LEGEND
MAJOR VFR JET ARRIVAL ROUTES
MAJOR VFR JET DEPARTURE ROUTES

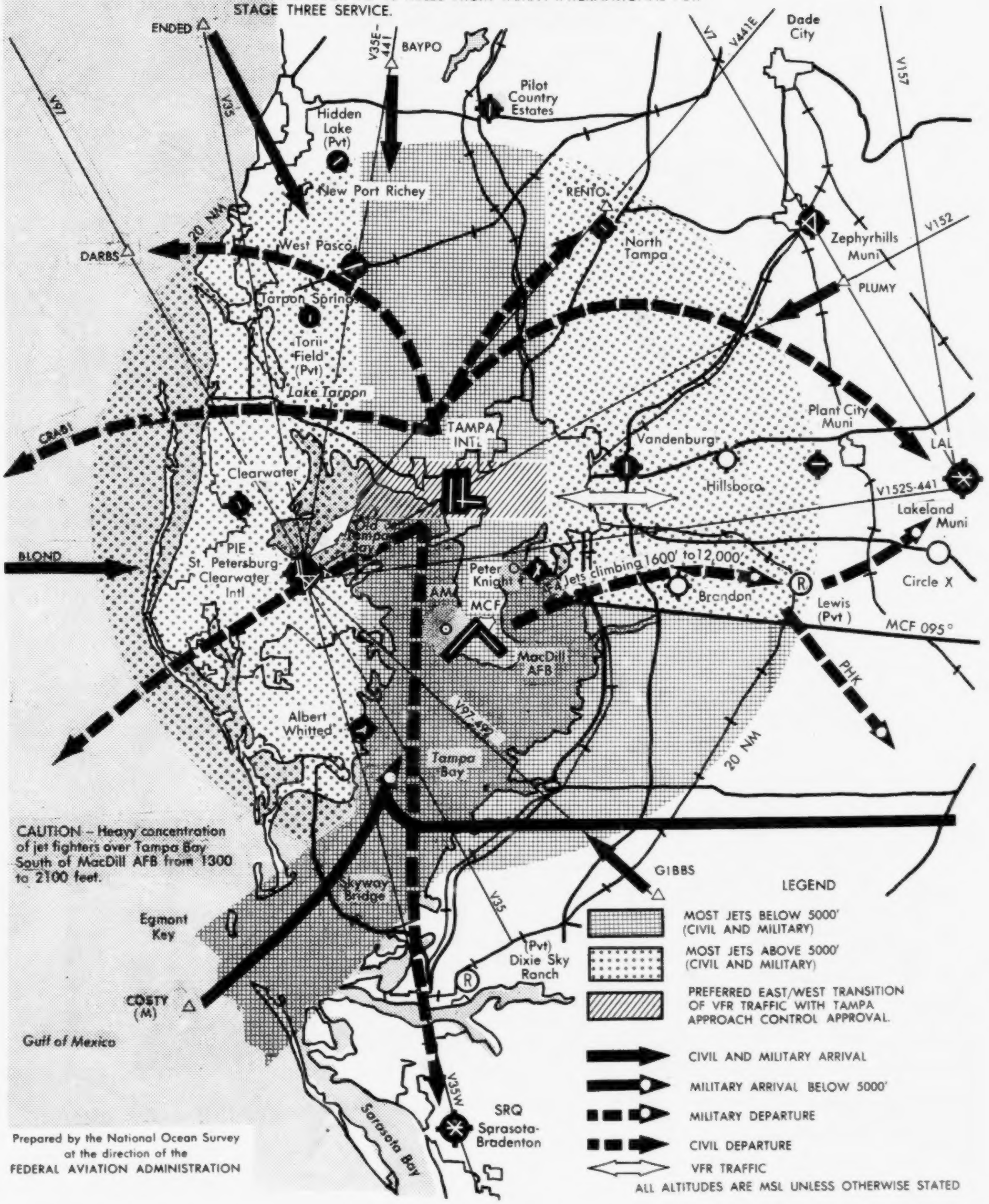
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

18 MAY 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA

VFR AIRCRAFT ARE STRONGLY URGED TO CONTACT TAMPA APPROACH CONTROL PRIOR TO 15 MILES FROM TAMPA INTERNATIONAL FOR STAGE THREE SERVICE.


ENDED
V35E-441
BAYPO
Dade City
V7
V441E
V157
V97
V35
Hidden Lake (Pvt)
Pilot Country Estates
New Port Richey
RENTO
20 NM
DARBS
West Pasco
North Tampa
Zephyrhills Muni
V152
PLUMY
Tarpon Springs
Torii Field (Pvt)
Lake Tarpon
CRABI
TAMPA INT.
Plant City Muni
Vandenburg
LAL
Hillsboro
Clearwater
V152S-441
Lakeland Muni
Old Tampa Bay
BLOND
PIE
St. Petersburg-Clearwater Intl
Peter Knight
Jets climbing 1600' to 12,000'
Brandon
Lewis (Pvt)
Circle X
AM
MCF
MacDill AFB
MCF 095°
PHK
V97-490
Albert Whitted
Tampa Bay
20 NM
GIBBS
Skyway Bridge
Egmont Key
V35
(Pvt) Dixie Sky Ranch
COSTY (M)
Gulf of Mexico
V35W
SRQ Sarasota-Bradenton
Sarasota Bay

CAUTION – Heavy concentration of jet fighters over Tampa Bay South of MacDill AFB from 1300 to 2100 feet.

LEGEND

▩	MOST JETS BELOW 5000' (CIVIL AND MILITARY)
░	MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
▨	PREFERRED EAST/WEST TRANSITION OF VFR TRAFFIC WITH TAMPA APPROACH CONTROL APPROVAL.
➡	CIVIL AND MILITARY ARRIVAL
➡	MILITARY ARRIVAL BELOW 5000'
➡	MILITARY DEPARTURE
➡	CIVIL DEPARTURE
⇔	VFR TRAFFIC

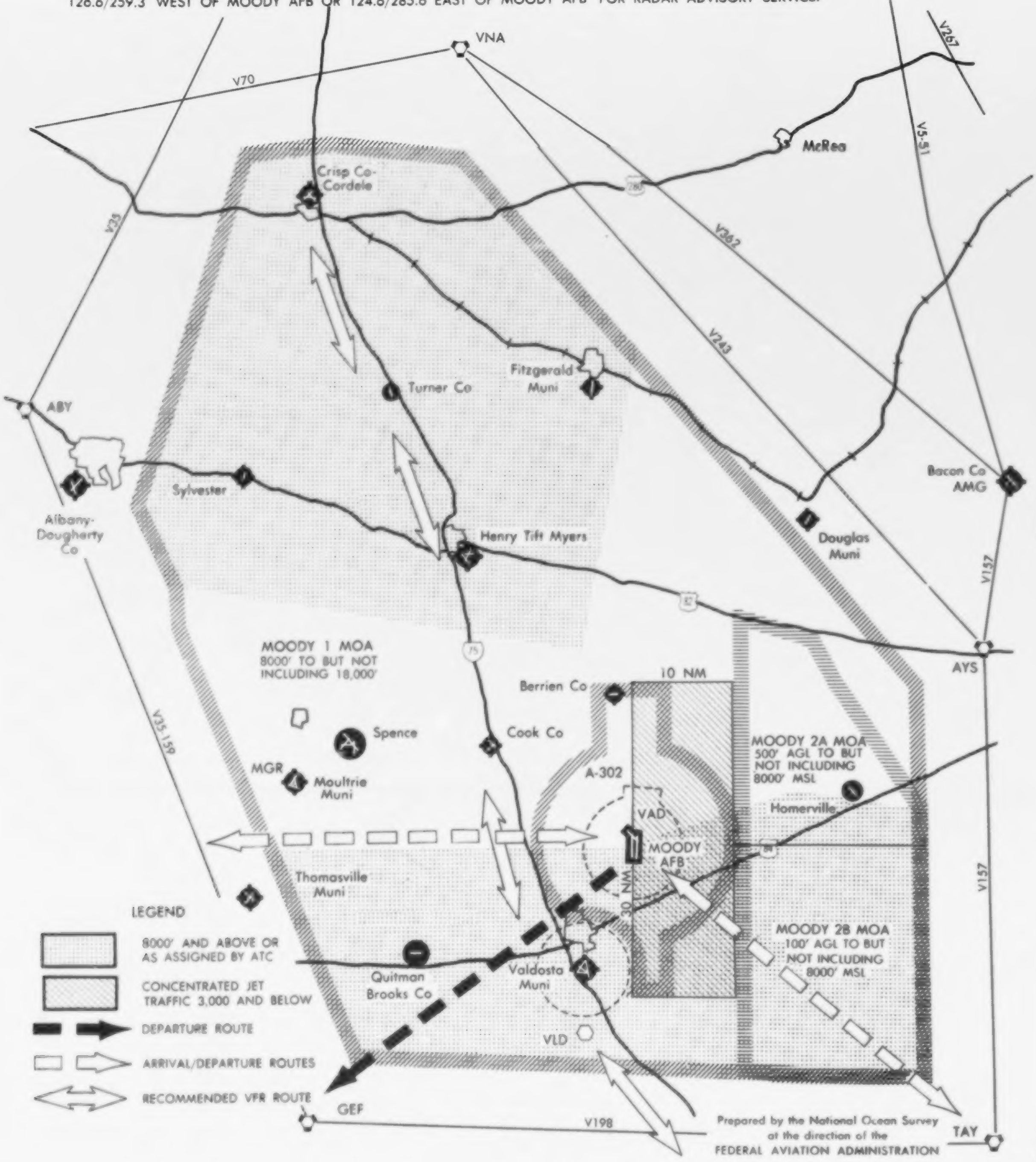
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALDOSTA, MOODY AFB, GA.

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF F-4 AIRCRAFT OPERATING IN THE VICINITY OF MOODY AFB, GEORGIA. VFR AIRCRAFT OVERFLYING THE AREA ARE URGED TO CONTACT VALDOSTA APPROACH ON 126.6/259.3 WEST OF MOODY AFB OR 124.6/285.6 EAST OF MOODY AFB FOR RADAR ADVISORY SERVICE.


VNA
V70
V267
V5-51
McRea
Crisp Co-Cordele
V35
280
V362
V243
Fitzgerald Muni
Turner Co
ABY
Albany-Dougherty Co
Sylvester
Henry Tift Myers
Bacon Co AMG
Douglas Muni
V157
82
AYS
75
MOODY 1 MOA
8000' TO BUT NOT INCLUDING 18,000'
V35-159
Berrien Co
10 NM
Spence
Cook Co
MOODY 2A MOA
500' AGL TO BUT NOT INCLUDING 8000' MSL
MGR
Moultrie Muni
A-302
Homerville
VAD
MOODY AFB
84
Thomasville Muni
30 NM
MOODY 2B MOA
100' AGL TO BUT NOT INCLUDING 8000' MSL
Quitman Brooks Co
Valdosta Muni
VLD
GEF
V198
TAY
LEGEND
8000' AND ABOVE OR AS ASSIGNED BY ATC
CONCENTRATED JET TRAFFIC 3,000 AND BELOW
DEPARTURE ROUTE
ARRIVAL/DEPARTURE ROUTES
RECOMMENDED VFR ROUTE

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

VALPARAISO, FLORIDA
SPECIAL AIR TRAFFIC RULES
(VFR OR IFR CONDITIONS)

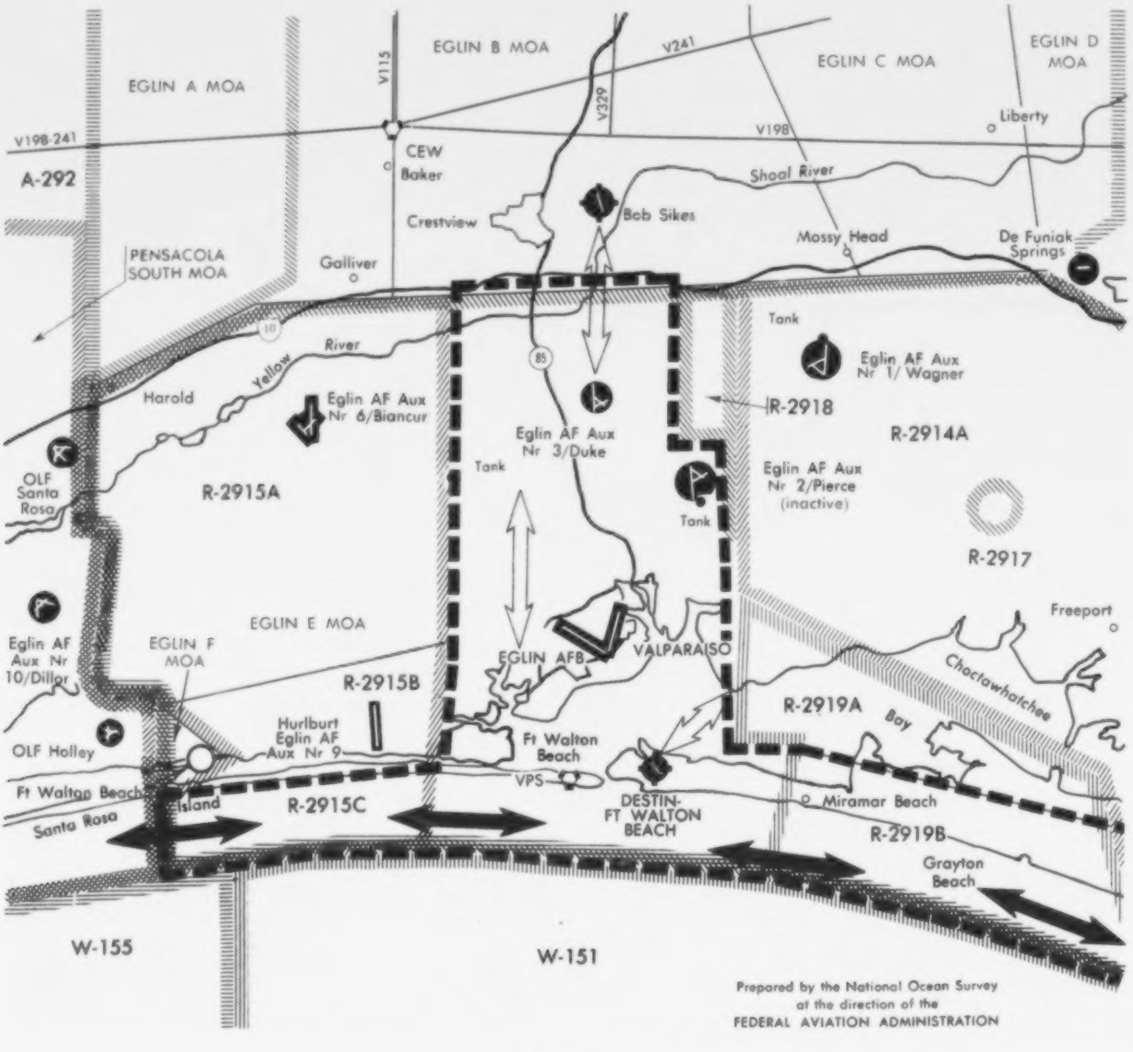
A SPECIAL RULE IN EFFECT REQUIRES PILOTS TO OBTAIN AN ATC CLEARANCE WHEN OPERATING IN AND OUT OF THE EGLIN/VALPARAISO, FLORIDA AREA.

▬ ▬ ▬ ▬ ▬ HI-DENSITY JET TRAFFIC 3000' AND BELOW

⇔ CLEARANCE REQUIRED PRIOR TO ENTERING NORTH/SOUTH CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED N/S ROUTINGS - 3500' OR ABOVE

⬌ ADVISORIES REQUIRED PRIOR TO OPERATING WITHIN EAST/WEST CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED E/W ROUTINGS - BELOW 8500'

(HEAVY DENSE JET TRAFFIC 3000' AND BELOW)


EGLIN A MOA
EGLIN B MOA
EGLIN C MOA
EGLIN D MOA
V115
V241
V329
V198-241
V198
A-292
CEW
Baker
Crestview
Bob Sikes
Shoal River
Liberty
Mossy Head
De Funiak Springs
PENSACOLA SOUTH MOA
Galliver
10
Yellow River
Tank
Harold
Eglin AF Aux Nr 6/Biancur
85
Eglin AF Aux Nr 1/ Wagner
R-2918
R-2914A
Eglin AF Aux Nr 3/Duke
OLF Santa Rosa
R-2915A
Eglin AF Aux Nr 2/Pierce (inactive)
R-2917
Freeport
EGLIN E MOA
Eglin AF Aux Nr 10/Dillor
EGLIN F MOA
EGLIN AFB
VALPARAISO
Choctawhatchee Bay
R-2915B
R-2919A
OLF Holley
Hurlburt Eglin AF Aux Nr 9
Ft Walton Beach
VPS
Ft Walton Beach
Santa Rosa Island
R-2915C
DESTIN-FT WALTON BEACH
Miramar Beach
R-2919B
Grayton Beach
W-155
W-151

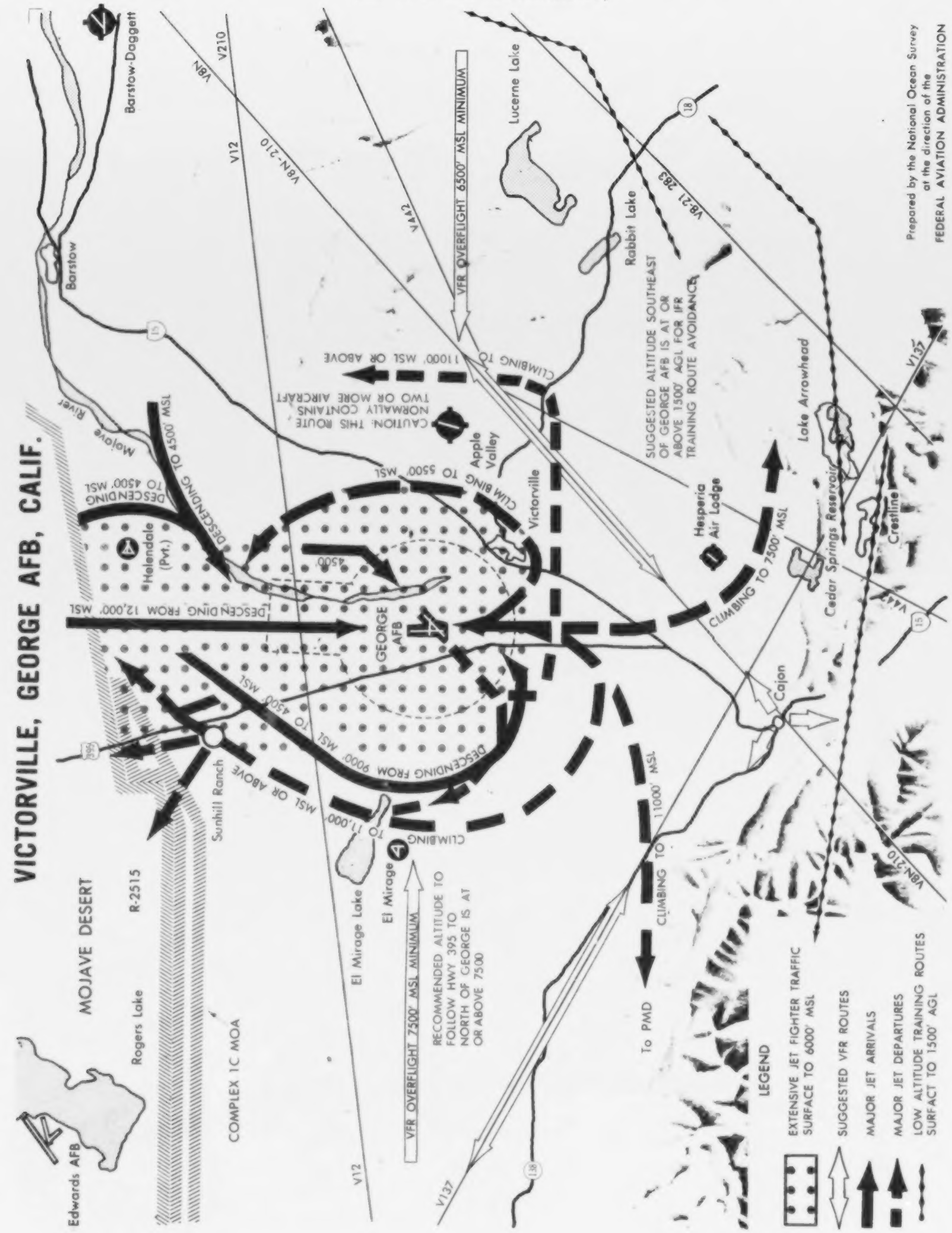
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

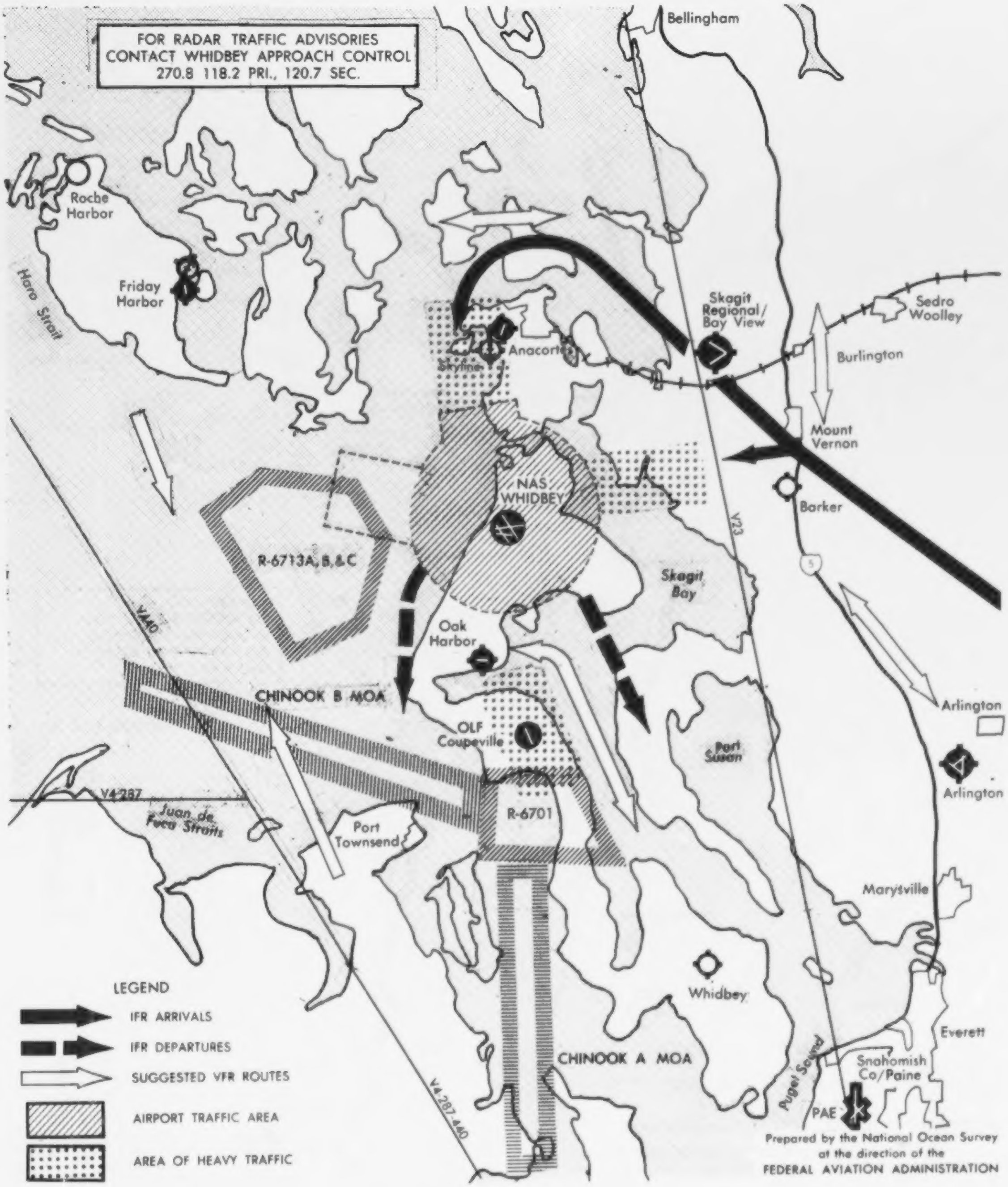
VICTORVILLE, GEORGE AFB, CALIF.


Edwards AFB
Rogers Lake
MOJAVE DESERT
R-2515
COMPLEX 1C MOA
Sunhill Ranch
395
V12
VFR OVERFLIGHT 7500' MSL MINIMUM
RECOMMENDED ALTITUDE TO FOLLOW HWY 395 TO NORTH OF GEORGE IS AT OR ABOVE 7500
El Mirage Lake
El Mirage
V137
138
To PMD
CLIMBING TO 11000' MSL
CLIMBING TO 11,000' MSL OR ABOVE
DESCENDING FROM 9000' MSL TO 4500' MSL
DESCENDING FROM 12,000' MSL
GEORGE AFB
4500'
Helendale (Pvt.)
DESCENDING TO 4500' MSL
DESCENDING TO 4500' MSL
Mojave River
CLIMBING TO 5500' MSL
Victorville
Apple Valley
CAUTION: THIS ROUTE NORMALLY CONTAINS TWO OR MORE AIRCRAFT
CLIMBING TO 11000' MSL OR ABOVE
15
Barstow
Barstow-Daggett
V210
VBN
VBN-210
V12
V442
VFR OVERFLIGHT 6500' MSL MINIMUM
Lucerne Lake
Rabbit Lake
18
VR-21 283
SUGGESTED ALTITUDE SOUTHEAST OF GEORGE AFB IS AT OR ABOVE 1500' AGL FOR IFR TRAINING ROUTE AVOIDANCE
Hesperia Air Lodge
CLIMBING TO 7500' MSL
Lake Arrowhead
Cedar Springs Reservoir
Crestline
V137
V442
15
Cajon
VBN-210
LEGEND
EXTENSIVE JET FIGHTER TRAFFIC SURFACE TO 6000' MSL
SUGGESTED VFR ROUTES
MAJOR JET ARRIVALS
MAJOR JET DEPARTURES
LOW ALTITUDE TRAINING ROUTES SURFACT TO 1500' AGL
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

WHIDBEY ISLAND, NAS WASHINGTON

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING NAS WHIDBEY FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, ARE ENCOURAGED TO CONTACT WHIDBEY APPROACH CONTROL FOR TRAFFIC ADVISORIES.



FOR RADAR TRAFFIC ADVISORIES
CONTACT WHIDBEY APPROACH CONTROL
270.8 118.2 PRI., 120.7 SEC.

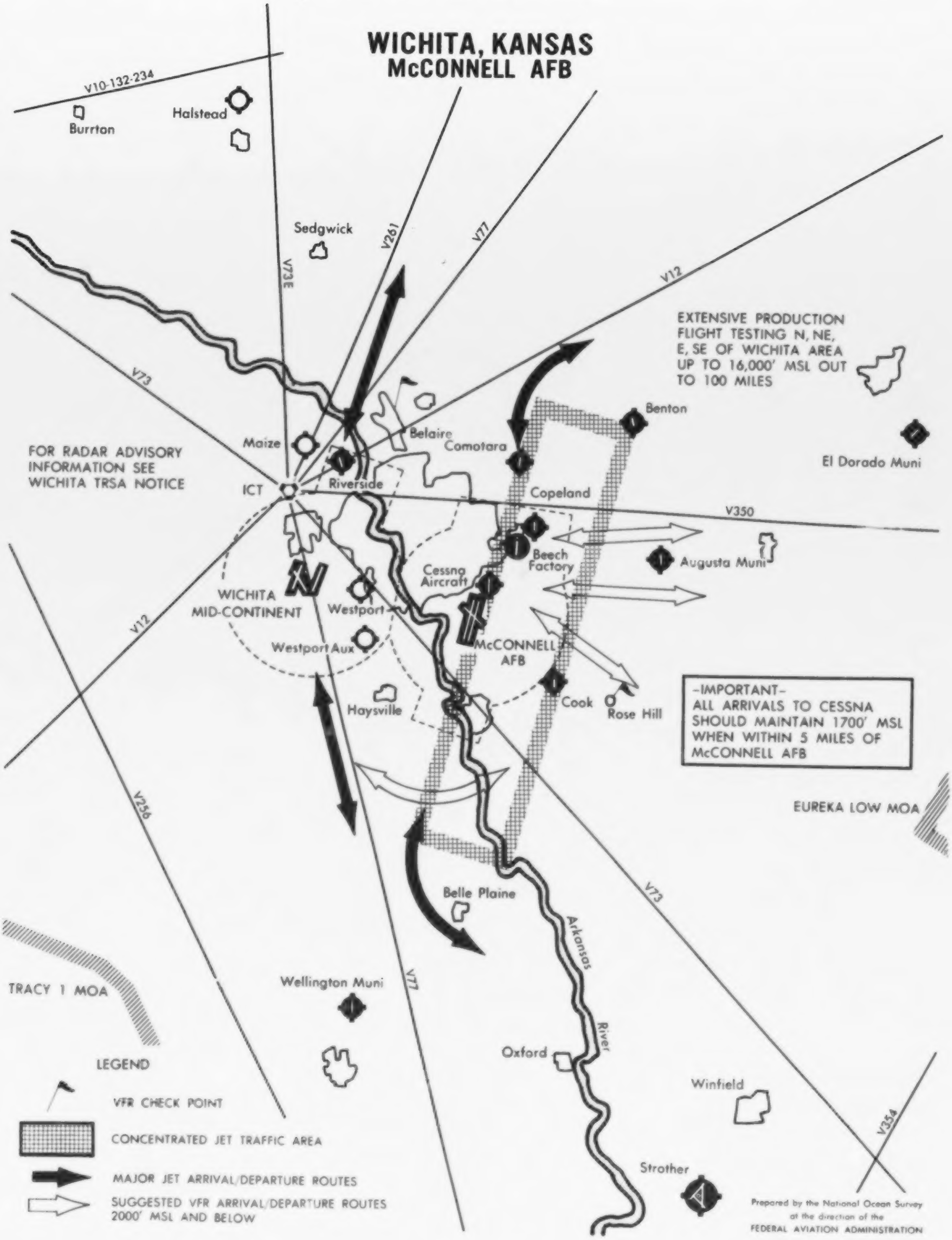
Bellingham
Roche Harbor
Friday Harbor
Haro Strait
Skagit Regional/ Bay View
Sedro Woolley
Burlington
Anacortes
Skyline
Mount Vernon
Barker
NAS WHIDBEY
V23
5
R-6713A, B, & C
Skagit Bay
Oak Harbor
V440
CHINOOK B MOA
OLF Coupeville
Port Susan
Arlington
Arlington
V4-287
Juan de Fuca Straits
R-6701
Port Townsend
Marysville
Whidbey
Everett
Puget Sound
Snohomish Co/Paine
PAE
CHINOOK A MOA
V4-287-440
LEGEND
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS
McCONNELL AFB


V10-132-234
Burrton
Halstead
Sedgwick
V73E
V261
V77
V12
V73
Maize
Belaire
Comotara
Benton
El Dorado Muni
ICT
Riverside
Copeland
V350
Beech Factory
Augusta Muni
Cessna Aircraft
WICHITA MID-CONTINENT
Westport
Westport Aux
McCONNELL AFB
Cook
Rose Hill
Haysville
V12
EUREKA LOW MOA
V256
Belle Plaine
Arkansas River
V73
TRACY 1 MOA
Wellington Muni
V77
Oxford
Winfield
V354
Strother
LEGEND
VFR CHECK POINT
CONCENTRATED JET TRAFFIC AREA
MAJOR JET ARRIVAL/DEPARTURE ROUTES
SUGGESTED VFR ARRIVAL/DEPARTURE ROUTES 2000' MSL AND BELOW

EXTENSIVE PRODUCTION FLIGHT TESTING N, NE, E, SE OF WICHITA AREA UP TO 16,000' MSL OUT TO 100 MILES

FOR RADAR ADVISORY INFORMATION SEE WICHITA TRSA NOTICE

-IMPORTANT-
ALL ARRIVALS TO CESSNA SHOULD MAINTAIN 1700' MSL WHEN WITHIN 5 MILES OF McCONNELL AFB

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

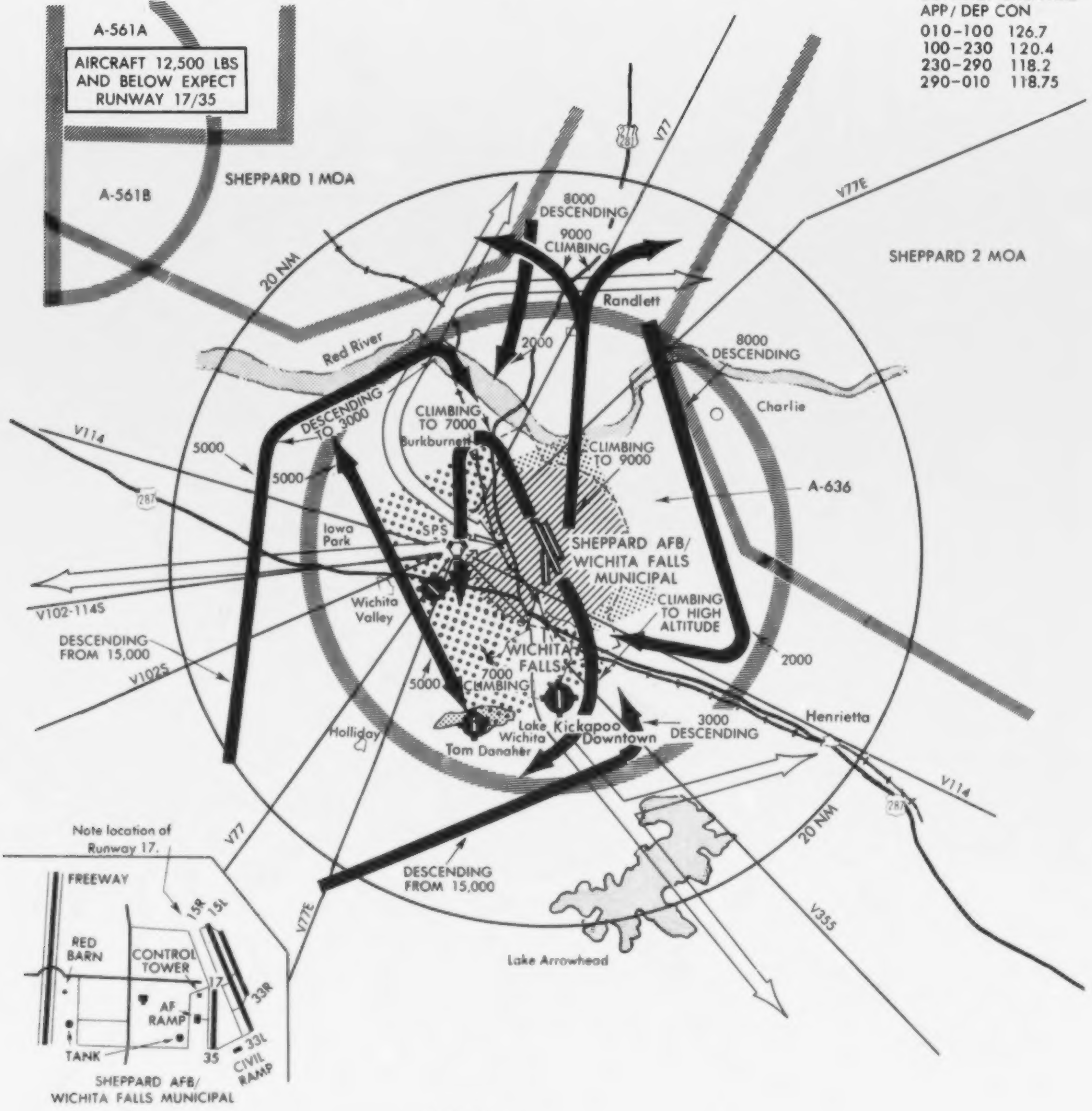
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA FALLS, TEXAS

THERE IS A HIGH VOLUME OF STUDENT JET OPERATIONS IN THE TERMINAL AREA. THE DARK ARROWS INDICATE JET IFR ARRIVAL AND DEPARTURE ROUTES THAT ARE MOST COMMONLY USED. RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTINGS ARE SHOWN BY THE LIGHT ARROWS. RECOMMEND VFR TRAFFIC STAY AT OR BELOW 2300 MSL IN VICINITY OF SHADED AREAS.

CONTACT SHEPPARD APP/ DEP CON

010-100	126.7
100-230	120.4
230-290	118.2
290-010	118.75



A-561A
AIRCRAFT 12,500 LBS AND BELOW EXPECT RUNWAY 17/35
A-561B
SHEPPARD 1 MOA
SHEPPARD 2 MOA
V77
V77E
287
8000 DESCENDING
9000 CLIMBING
20 NM
Randlett
Red River
2000
8000 DESCENDING
Charlie
DESCENDING TO 3000
CLIMBING TO 7000
Burkburnett
CLIMBING TO 9000
V114
5000
5000
A-636
Iowa Park
SPS
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL
V102-114S
Wichita Valley
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 15,000
V102S
WICHITA FALLS
2000
5000
7000 CLIMBING
3000 DESCENDING
Henrietta
Holliday
Lake Wichita
Kickapoo
Downtown
Tom Danaher
V114
287
20 NM
V77
DESCENDING FROM 15,000
V77E
V355
Lake Arrowhead
Note location of Runway 17.
FREEWAY
15R
15L
RED BARN
CONTROL TOWER
17
33R
AF RAMP
TANK
35
33L
CIVIL RAMP
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL

LEGEND

➡	IFR ARRIVAL/DEPARTURE ROUTES	▒	T-37 TRAFFIC SURFACE TO 3000
⇨	VFR ARRIVAL/DEPARTURE ROUTES	░	T-38 TRAFFIC AT 2800
▨	AIRPORT TRAFFIC AREA		

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

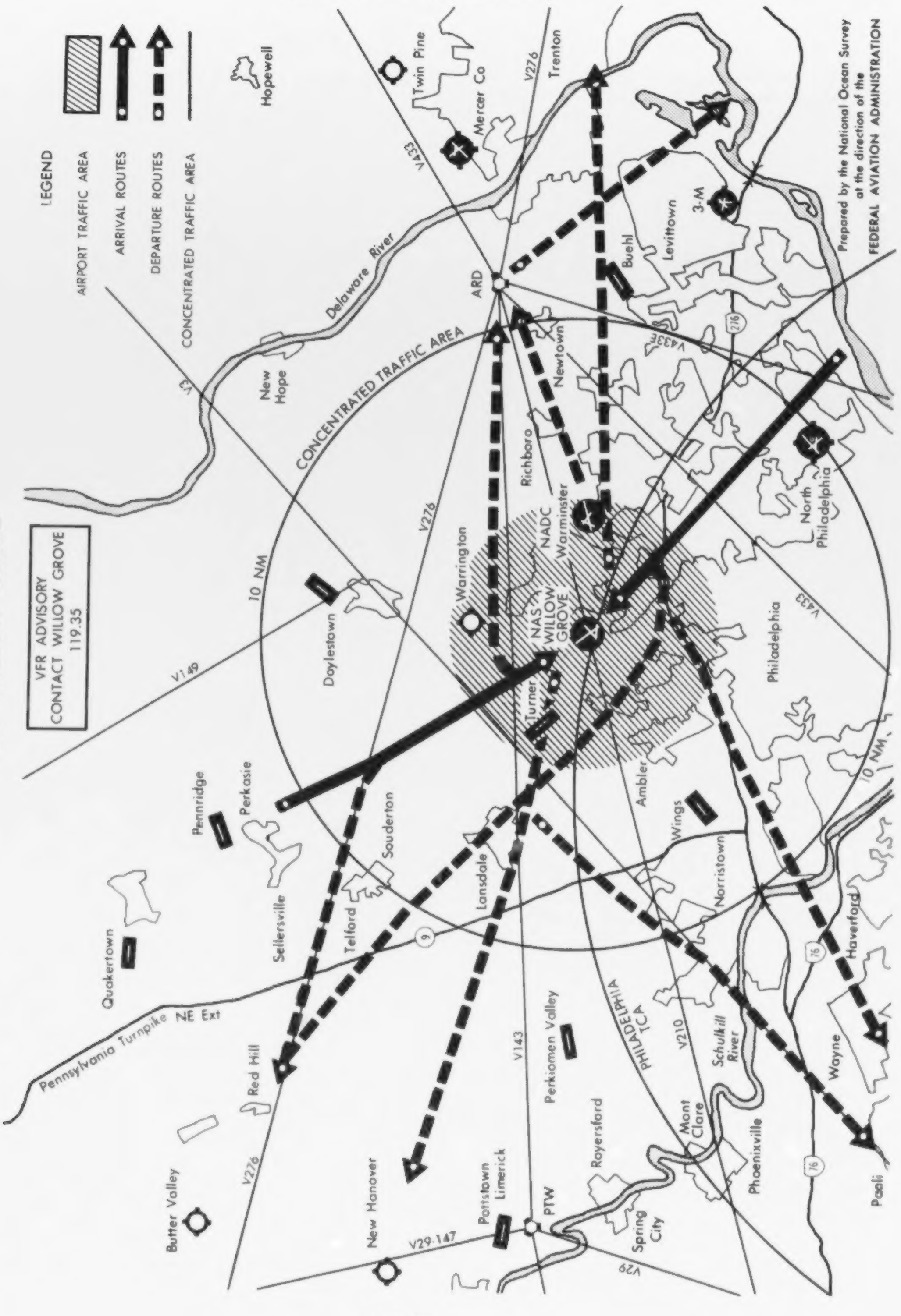
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

1 MAR 1979

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

WILLOW GROVE, PENNSYLVANIA
NAS WILLOW GROVE


VFR ADVISORY
CONTACT WILLOW GROVE
119.35
LEGEND
AIRPORT TRAFFIC AREA
ARRIVAL ROUTES
DEPARTURE ROUTES
CONCENTRATED TRAFFIC AREA
10 NM
CONCENTRATED TRAFFIC AREA
NAS WILLOW GROVE
NADC Warminster
Warrington
Doylestown
Richboro
Newtown
New Hope
Delaware River
ARD
Buehl
Levittown
3-M
Mercer Co
Twin Pine
Trenton
Hopewell
North Philadelphia
Philadelphia
Turner
Ambler
Wings
Norristown
Haverford
Wayne
Paoli
Phoenixville
Mont Clare
Schulkill River
PHILADELPHIA TCA
Royersford
Spring City
Pottstown Limerick
PTW
New Hanover
Butter Valley
Red Hill
Quakertown
Pennsylvania Turnpike NE Ext
Sellersville
Telford
Souderton
Pennridge
Perkasie
Lansdale
Perkiomen Valley
V3
V149
V276
V433
V433E
V143
V210
V29
V29-147
9
276
76

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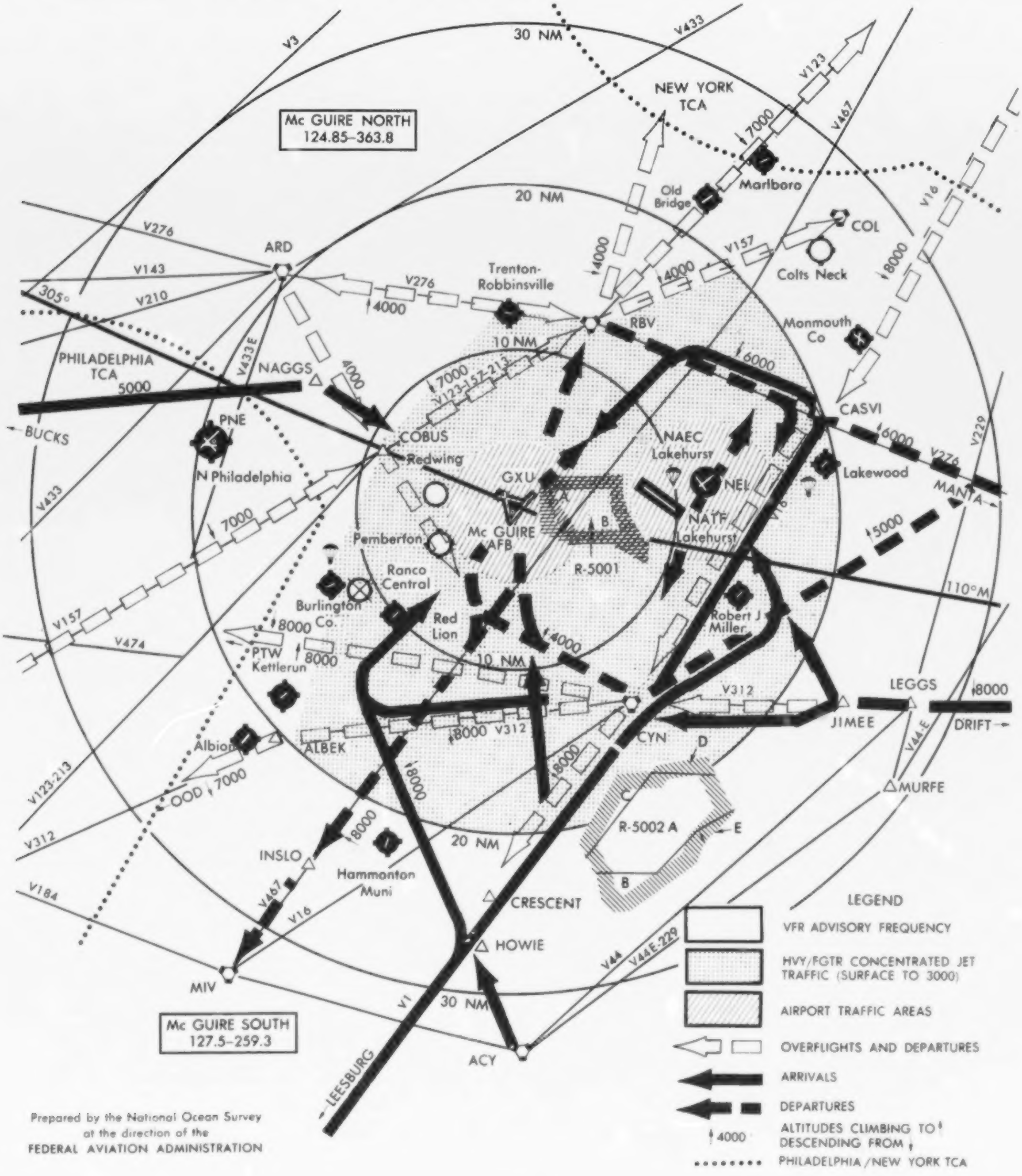
1 APR 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WRIGHTSTOWN, Mc GUIRE AFB, NJ

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE Mc GUIRE RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT Mc GUIRE APPROACH (APPROPRIATE SECTOR) FOR TRAFFIC ADVISORIES.


Mc GUIRE NORTH
124.85–363.8
Mc GUIRE SOUTH
127.5–259.3
30 NM
20 NM
10 NM
NEW YORK TCA
PHILADELPHIA TCA
5000
V3
V433
V123
V467
V16
V276
V143
V210
V433E
V157
V474
V312
V123-213
V184
V229
V44
V44E
V44E-229
V1
V123-157-213
305°
110°M
7000
4000
6000
8000
ARD
RBV
Trenton-Robbinsville
Old Bridge
Marlboro
COL
Colts Neck
Monmouth Co
CASVI
MANTA
Lakewood
NAGGS
COBUS
Redwing
BUCKS
PNE
N Philadelphia
GXU
Mc GUIRE AFB
Pemberton
Ranco Central
Burlington Co.
Red Lion
PTW
Kettlerun
NAEC Lakehurst
NEL
NATF Lakehurst
A
B
R-5001
Robert J Miller
CYN
D
C
E
R-5002 A
ALBEK
Albion
OOD
INSLO
Hammonton Muni
MIV
CRESCENT
HOWIE
ACY
LEESBURG
JIMEE
LEGGS
DRIFT
MURFE
LEGEND
VFR ADVISORY FREQUENCY
HVY/FGTR CONCENTRATED JET TRAFFIC (SURFACE TO 3000)
AIRPORT TRAFFIC AREAS
OVERFLIGHTS AND DEPARTURES
ARRIVALS
DEPARTURES
4000 ALTITUDES CLIMBING TO ↑ DESCENDING FROM ↓
PHILADELPHIA/NEW YORK TCA

Prepared by the National Ocean Survey
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24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON NATIONAL AIRPORT NOISE ABATEMENT PROCEDURES

DEPARTURES

JET AIRCRAFT – From take-off climb to 1500′. At 1500′ reduce power to a target setting computed for hot day conditions at maximum gross take-off weight to give approximately 500′ FPM climb. (In lieu of 1500′ as the point of power reduction, the 2 mile DME fix* when departing northwest or northeast or the 3 mile DME fix* when departing south may be used). Maintain reduced power until past a 10 mile DME arc*. Upon reaching the 10 mile DME arc*, gradually increase power to normal climb settings. Follow the Potomac or Anacostia River routes described below unless otherwise advised by ATC.

ATC CLEARANCE TO "CONTINUE CLIMB" IN NO WAY ELIMINATES THE REQUIREMENT TO COMPLY WITH NOISE ABATEMENT PROCEDURES, EXCEPT THAT THE SPECIFIC ATC INSTRUCTION TO "EXPEDITE CLIMB" RELEASES THE PILOT FROM FURTHER COMPLIANCE WITH NOISE ABATEMENT PROCEDURES.

NORTHWEST – Potomac River to abeam Georgetown Reservoir thence continue over the river or via 325° Radial* until past the 10 mile DME arc.*

NORTHEAST – Anacostia River to the 5 mile DME fix*, continuing at reduced power past a 10 mile DME arc*.

SOUTH – Potomac River to the 5 mile DME fix*, continuing at reduced power past a 10 Mile DME arc*.

(*Washington (DCA) VOR/DME)

1-AND 2-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 1500′ prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 2000′ prior to turning on course unless instructed to turn sooner by ATC.

ARRIVALS

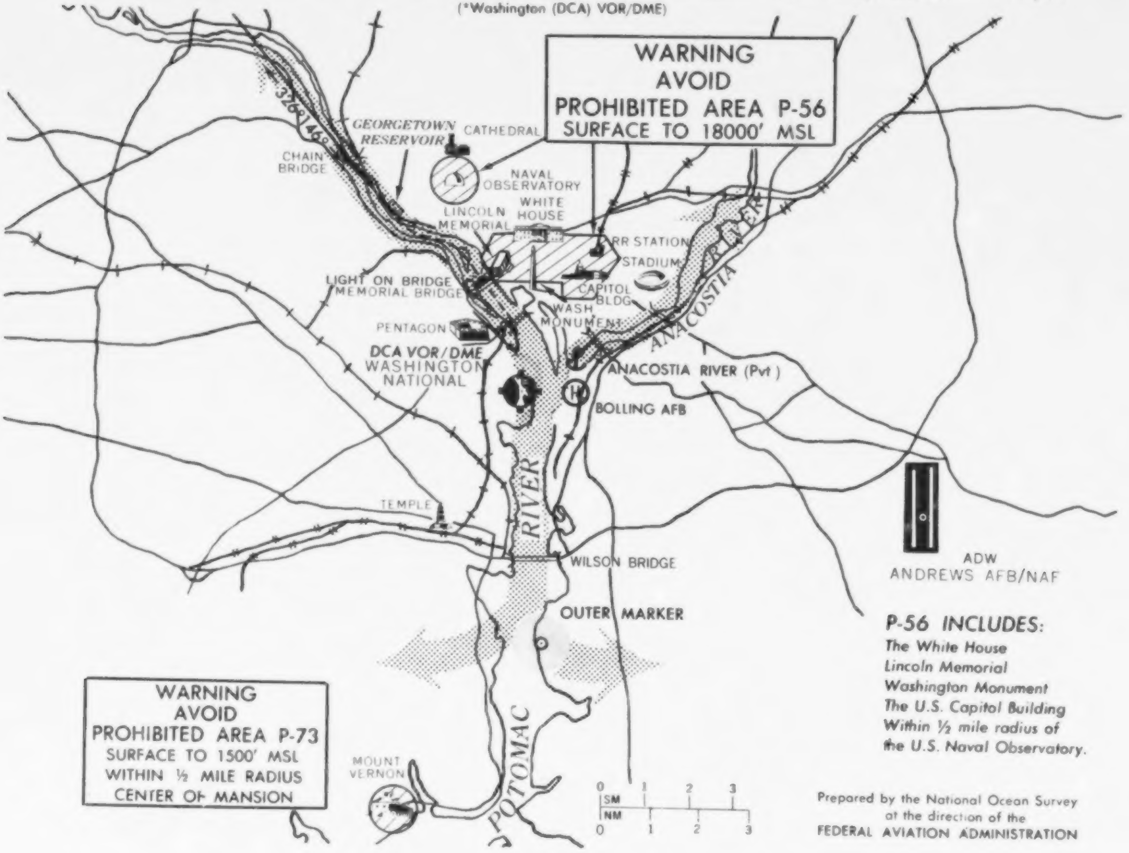
Aircraft shall be vectored so as to continue their approaches over the rivers while being spaced within the traffic flow.

Aircraft making IFR approaches from the northwest shall be cleared for a River Approach (Visual) when weather is 3500′ and 3 miles or better. Radar vectors will be provided to the final approach course. When cleared for a River Approach, aircraft may visually follow the river to the airport or may proceed via the DCA VOR 326° radial (146° inbound) or via the LDA RWY 18 approach to abeam Georgetown Reservoir or the DCA 4 mile DME, then visually follow the river to the airport.

A light on Memorial Bridge is installed to assist pilots in staying over the Potomac River during approaches from the northwest.

Aircraft making IFR approaches from the south shall be cleared for a Mount Vernon Approach (Visual) when weather is 3000′ and 4 miles or better. When so cleared, aircraft will proceed inbound via 187° radial* (007° inbound) to abeam Oxon NDB or 5.6 DME fix*, then will visually follow the river to the airport.

(*Washington (DCA) VOR/DME)


WARNING
AVOID
PROHIBITED AREA P-56
SURFACE TO 18000′ MSL
326°/146°
GEORGETOWN RESERVOIR
CATHEDRAL
CHAIN BRIDGE
NAVAL OBSERVATORY
LINCOLN MEMORIAL
WHITE HOUSE
RR STATION
STADIUM
ANACOSTIA RIVER
LIGHT ON BRIDGE
MEMORIAL BRIDGE
CAPITOL BLDG
WASH MONUMENT
PENTAGON
DCA VOR/DME
WASHINGTON NATIONAL
ANACOSTIA RIVER (Pvt)
BOLLING AFB
TEMPLE
RIVER
WILSON BRIDGE
ADW
ANDREWS AFB/NAF
OUTER MARKER
P-56 INCLUDES:
The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol Building
Within ½ mile radius of the U.S. Naval Observatory.
WARNING
AVOID
PROHIBITED AREA P-73
SURFACE TO 1500′ MSL
WITHIN ½ MILE RADIUS
CENTER OF MANSION
MOUNT VERNON
POTOMAC
SM
NM
0
1
2
3

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FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREAS
(TRSA)

SERVICES PROVIDED

1. Services within a TRSA are provided on a voluntary pilot participation basis. ATC assumes that VFR aircraft entering or departing the TRSA want the service unless the pilot advises otherwise. If VFR pilots do not want the service, they should inform ground control or approach control, as appropriate, on initial contact by stating 'NEGATIVE STAGE III,' or by making a similar comment.

2. Radar vectoring and sequencing is provided on a full-time basis for all IFR and participating VFR aircraft landing at the primary airport, and at other airports if specifically advertised.

3. Separation between all participating VFR aircraft and all IFR aircraft operating within the TRSA is provided.

4. Radar advisories on all unidentified aircraft are provided on a workload permitting basis.

5. Service provided in a TRSA is also called Stage III Service and a more detailed explanation of the program is provided in the Airman's Information Manual, Part 1.

FLIGHT PROCEDURES

1. IFR Flights—Aircraft operating within the TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights

a. Airports within the TRSA:

(1) Arriving aircraft landing at airports within the TRSA are expected to contact Approach Control on specified frequencies in relation to geographical fixes depicted on the TRSA charts on the following pages. Initial contact should be made outside of the TRSA.

(2) Departing aircraft should inform ATC of their intended destination and/or route of flight and proposed cruising altitude. Departing aircraft will be advised by the tower when to contact departure control and given a frequency to be used.

b. Airports underlying the TRSA—Unless the flight will be conducted below the floor of the TRSA, arriving aircraft are expected to contact Approach Control on specified frequencies in relation to geographical fixes listed on the individual TRSA charts. Initial contact should be made outside of the TRSA.

c. Transiting aircraft—Aircraft desiring to transit the TRSA are expected to contact Departure/Approach Control on specified frequencies and in relation to geographical fixes listed on the individual TRSA charts.

ATC PROCEDURES

1. While operating within a TRSA, pilots are provided Stage III service and separation. In the event of a radar outage, separation and sequencing of VFR aircraft will be suspended as this service is depedent on radar. The pilot will be advised that the service is not available and issued wind, runway information, and the time or place to contact the tower. Traffic information will be provided on a workload-permitting basis.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio).

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

> NOTE: Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

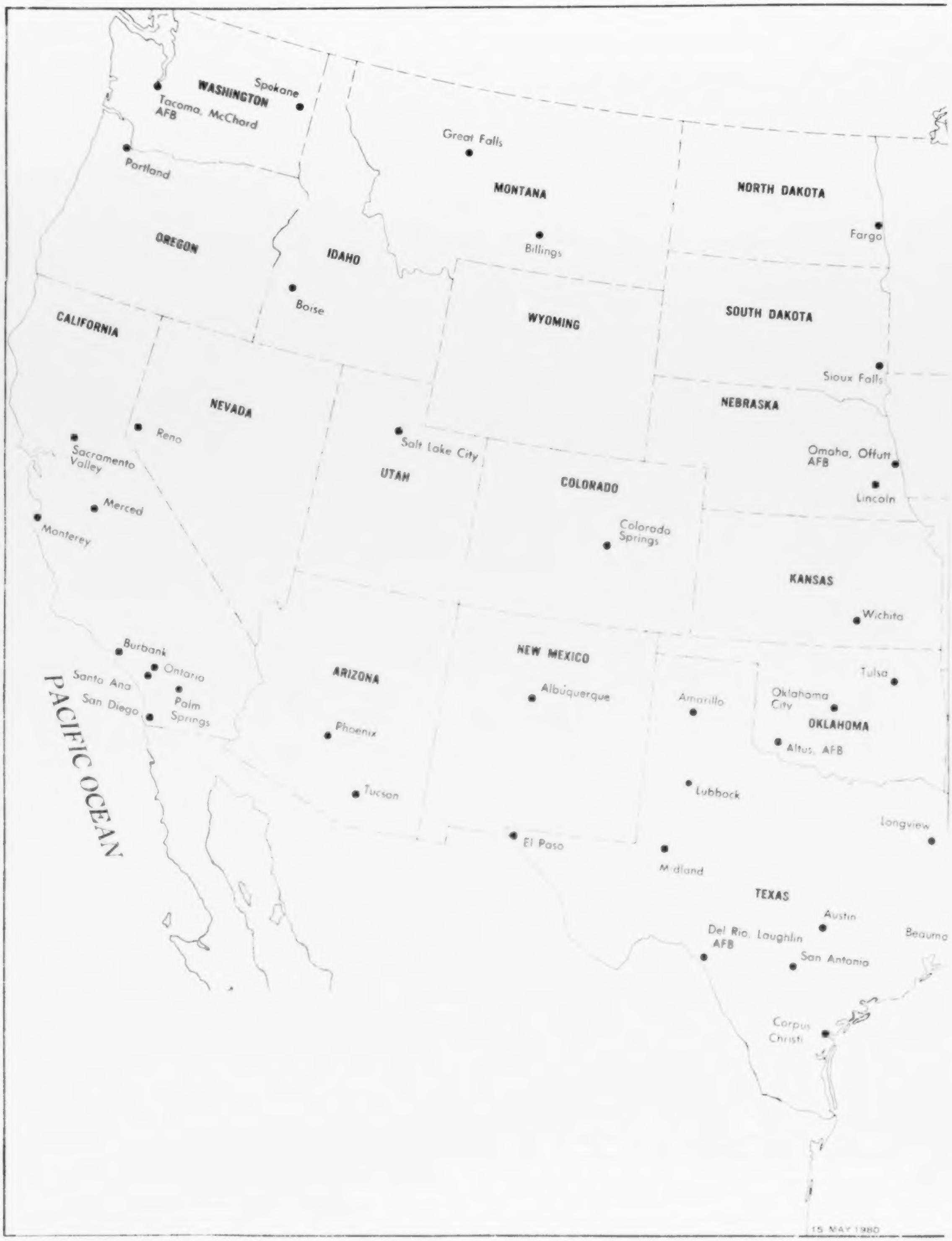
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

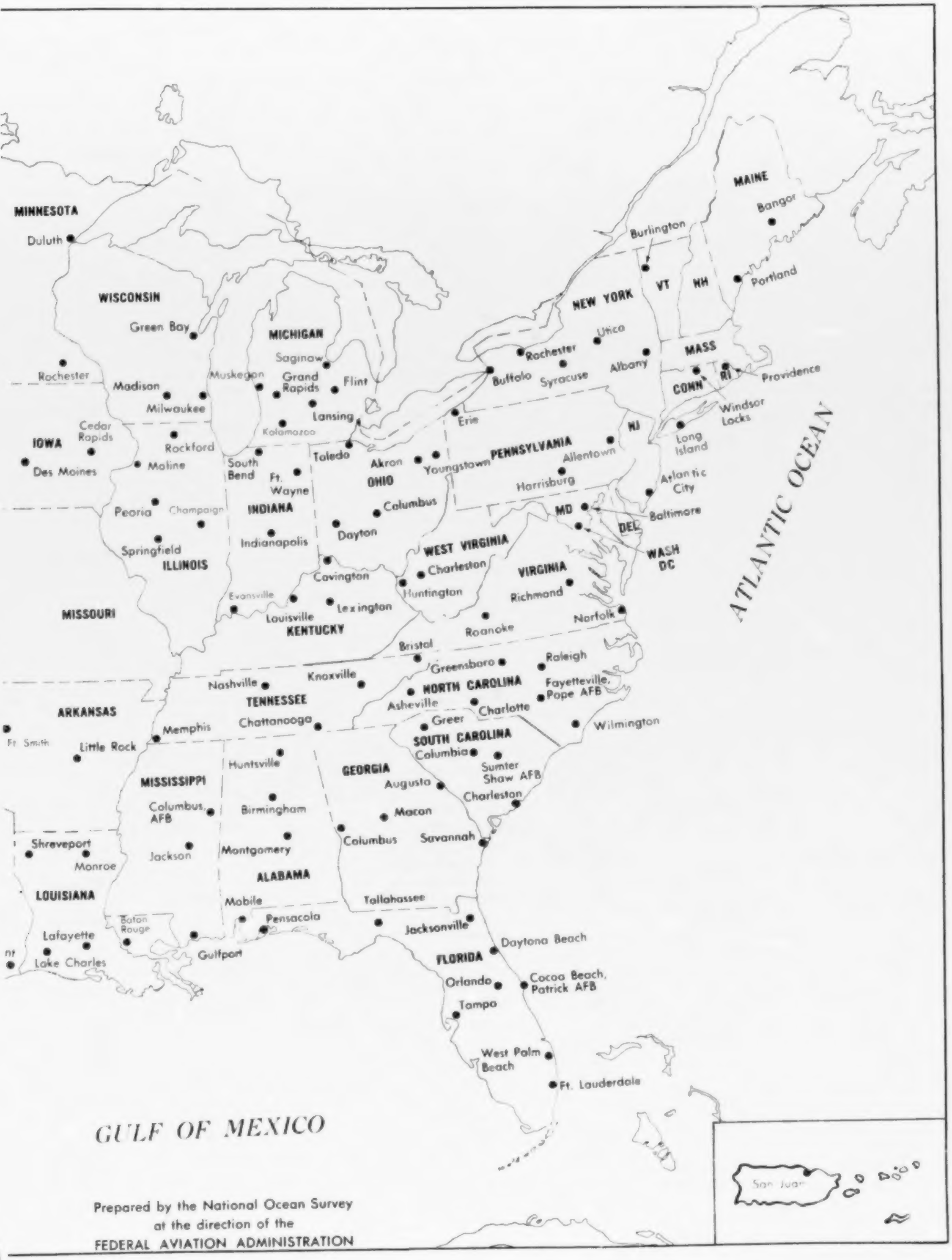
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

INDEX OF TERMINAL RADAR SERVICE AREAS


WASHINGTON
Spokane
Tacoma, McChord AFB
Portland
OREGON
MONTANA
Great Falls
Billings
NORTH DAKOTA
Fargo
IDAHO
Boise
CALIFORNIA
WYOMING
SOUTH DAKOTA
Sioux Falls
NEVADA
Reno
Sacramento Valley
Salt Lake City
UTAH
NEBRASKA
Omaha, Offutt AFB
Lincoln
COLORADO
Colorado Springs
Merced
Monterey
KANSAS
Wichita
Burbank
Ontario
Santa Ana
San Diego
Palm Springs
PACIFIC OCEAN
ARIZONA
Phoenix
Tucson
NEW MEXICO
Albuquerque
El Paso
Amarillo
Lubbock
Midland
Tulsa
Oklahoma City
OKLAHOMA
Altus, AFB
Longview
TEXAS
Austin
Del Rio, Laughlin AFB
San Antonio
Beaumo
Corpus Christi
15 MAY 1980

INDEX OF TERMINAL RADAR SERVICE AREAS


MINNESOTA
Duluth
WISCONSIN
Green Bay
Rochester
Madison
Milwaukee
IOWA
Cedar Rapids
Des Moines
Rockford
Moline
Peoria
Champaign
Springfield
ILLINOIS
MISSOURI
MICHIGAN
Saginaw
Muskegon
Grand Rapids
Flint
Lansing
Kalamazoo
South Bend
Ft. Wayne
INDIANA
Indianapolis
Evansville
Louisville
Lexington
KENTUCKY
Toledo
Akron
Youngstown
OHIO
Columbus
Dayton
Covington
Erie
PENNSYLVANIA
Allentown
Harrisburg
WEST VIRGINIA
Charleston
Huntington
VIRGINIA
Richmond
Roanoke
Norfolk
NEW YORK
Buffalo
Rochester
Syracuse
Utica
Albany
Burlington
VT
NH
MAINE
Bangor
Portland
MASS
CONN
RI
Providence
Windsor Locks
NJ
Long Island
Atlantic City
MD
Baltimore
DEL
WASH DC
ATLANTIC OCEAN
Bristol
Greensboro
Raleigh
NORTH CAROLINA
Asheville
Charlotte
Fayetteville, Pope AFB
Wilmington
Nashville
Knoxville
TENNESSEE
Chattanooga
Memphis
ARKANSAS
Ft. Smith
Little Rock
Greer
SOUTH CAROLINA
Columbia
Sumter Shaw AFB
Augusta
Charleston
GEORGIA
Macon
Columbus
Savannah
Huntsville
MISSISSIPPI
Columbus, AFB
Birmingham
Jackson
Montgomery
ALABAMA
Shreveport
Monroe
LOUISIANA
Lafayette
Lake Charles
Baton Rouge
Gulfport
Mobile
Pensacola
Tallahassee
Jacksonville
Daytona Beach
FLORIDA
Orlando
Cocoa Beach, Patrick AFB
Tampa
West Palm Beach
Ft. Lauderdale
GULF OF MEXICO
San Juan

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

★TRSA CHARTED ON SECTIONAL
†TRSA THAT WILL APPEAR ON SECTIONALS JULY 10

TABLE OF CONTENTS

SECTIONAL

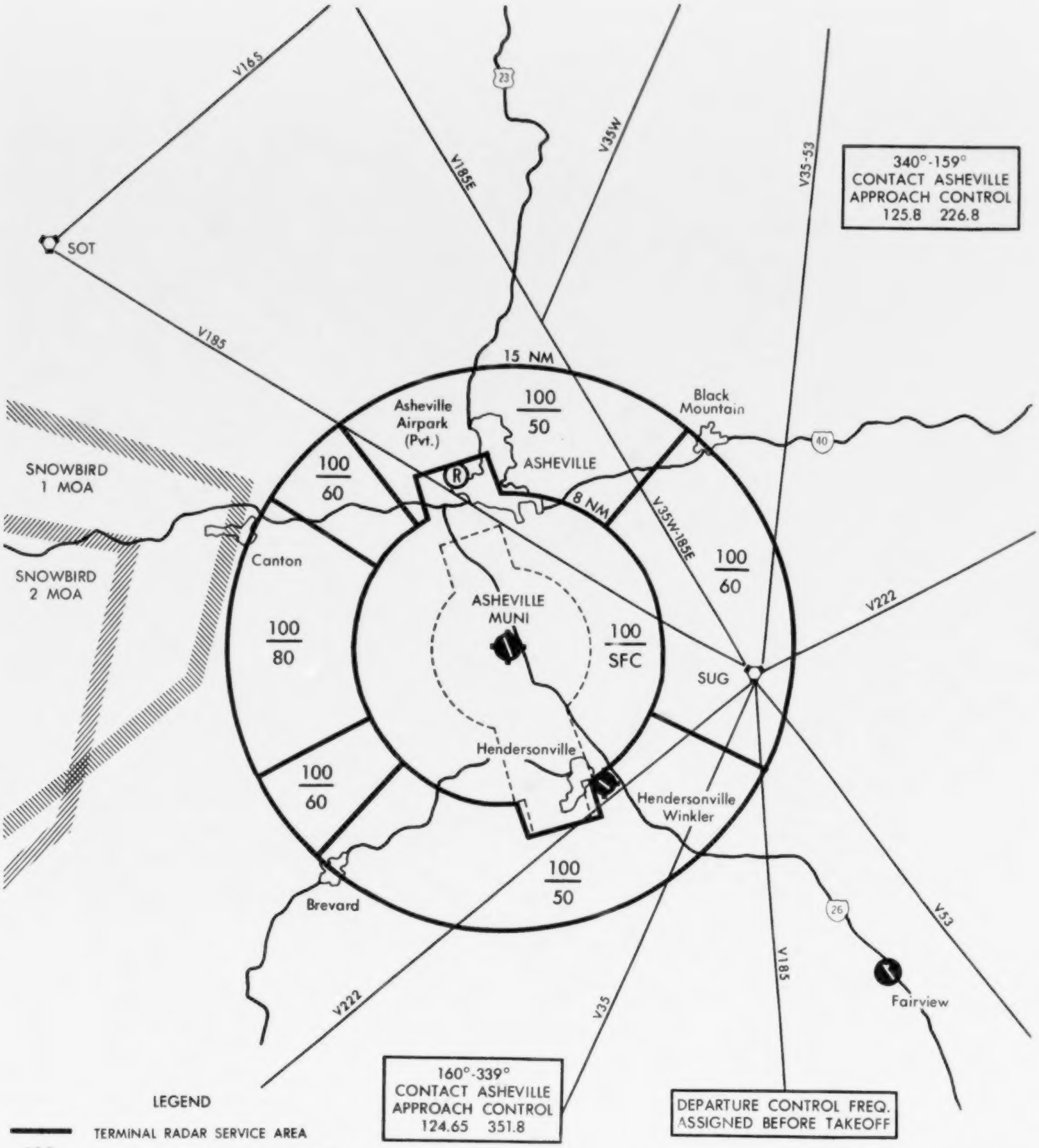
★Akron, Oh. .... DETROIT
★Albany, N.Y. .... NEW YORK
★Albuquerque, N.M. .... ALBUQUERQUE
★Allentown, Pa. .... NEW YORK
†Altus AFB, Ok. .... DALLAS-FT WORTH
†Amarillo, Tx. .... DALLAS-FT WORTH
Asheville, N.C. TRSA-5
Atlantic City, N.J. TRSA-6
★Augusta, Ga. .... ATLANTA
★Austin, Tx .... SAN ANTONIO
Baltimore, Md. TRSA-7
★Bangor, Me. .... HALIFAX
Baton Rouge, La. TRSA-8
Beaumont, Tx. TRSA-9
★Billings, Mt. .... BILLINGS
★Birmingham, Al. .... ATLANTA
★Boise, Id. .... SALT LAKE CITY
Bristol, Tn. TRSA-10
★Buffalo, N.Y. .... DETROIT
Burbank, Ca. TRSA-11
★Burlington, Vt. .... MONTREAL
★Cedar Rapids, Ia. .... CHICAGO
★Champaign, Il. .... CHICAGO
Charleston, S.C. TRSA-12
Charleston, W.V. TRSA-13
Charlotte, N.C. TRSA-14
★Chattanooga, Tn. .... ATLANTA
Cincinnatti, Ohio (See Covington, Ky.)
Cocoa Beach, Patrick AFB, Fl. TRSA-15
Colorado Springs, Co. TRSA-16
Columbia, S.C. TRSA-17
★Columbus, Ga. .... ATLANTA
★Columbus AFB, Ms. .... MEMPHIS
Columbus, Oh. TRSA-18
Corpus Christi, Tx. TRSA-19
Covington, Ky. TRSA-20
Dayton, Oh. TRSA-21
Daytona Beach, Fl. TRSA-22
★Del Rio, Laughlin AFB, Tx. .... SAN ANTONIO
Des Moines, Ia. TRSA-23
Duluth, Mn. TRSA-24
El Paso, Tx. TRSA-25
★Erie, Pa. .... DETROIT
★Evansville, In. .... ST LOUIS
Fargo, N.D. TRSA-26
Fayetteville, Pope AFB, N.C. TRSA-27
★Flint, Mi. .... DETROIT
Ft. Lauderdale, Fl. TRSA-28
★Ft. Smith, Ar. .... MEMPHIS
★Ft. Wayne, In. .... CHICAGO
★Grand Rapids, Mi. .... CHICAGO
†Great Falls, Mt. .... GREAT FALLS
Green Bay, Wi. TRSA-29
Greensboro, N.C. TRSA-30
★Greer, S.C. .... ATLANTA
†Gulfport, Ms. .... NEW ORLEANS
Harrisburg, Pa. TRSA-31
Huntington, W.V. TRSA-32
★Huntsville, Al. .... ATLANTA
★Indianapolis, In. .... ST LOUIS
★Jackson, Ms. .... MEMPHIS
Jacksonville, Fl. TRSA-33
★Kalamazoo, Mi. .... CHICAGO
★Knoxville, Tn. .... ATLANTA
Lafayette, La. TRSA-34
Lake Charles, La TRSA-35
★Lansing, Mi. .... DETROIT

SECTIONAL

Lexington, Ky. TRSA-36
Lincoln, Nb. TRSA-37
★Little Rock, Ar. .... MEMPHIS
★Long Island, N.Y. .... NEW YORK
★Longview, Tx. .... MEMPHIS
★Louisville, Ky. .... ST LOUIS
†Lubbock, Tx. .... DALLAS-FT WORTH
★Macon, Ga. .... ATLANTA
★Madison, Wi. .... CHICAGO
★Memphis, Tn. .... MEMPHIS
Merced, Ca. TRSA-38
★Midland, Tx. .... SAN ANTONIO
★Milwaukee, Wi. .... CHICAGO
†Mobile, Al. .... NEW ORLEANS
★Moline, Il. .... CHICAGO
★Monroe, La. .... MEMPHIS
★Monterey, Ca. .... SAN FRANCISCO
★Montgomery, Al. .... ATLANTA
★Muskegon, Mi. .... CHICAGO
★Nashville, Tn. .... ST LOUIS
Norfolk, Va. TRSA-39
†Oklahoma City, Ok. .... DALLAS-FT WORTH
Omaha, Offutt AFB, Nb. TRSA-40
Ontario, Ca. TRSA-41
Orlando, Fl. TRSA-42
Palm Springs, Ca. TRSA-43
Pensacola, Fl. TRSA-44
★Peoria, Il. .... CHICAGO
Phoenix, Az. TRSA-45
★Portland, Me. .... NEW YORK
†Portland, Or. .... SEATTLE
★Providence, R.I. .... NEW YORK
Raleigh, N.C. TRSA-46
Reno, Nv. TRSA-47
Richmond, Va. TRSA-48
Roanoke, Va. TRSA-49
★Rochester, Mn. .... CHICAGO
★Rochester, N.Y. .... DETROIT
★Rockford, Il. .... CHICAGO
★Sacramento Valley, Ca. .... SAN FRANCISCO
★Saginaw, Mi. .... DETROIT
★Salt Lake City, Ut. .... SALT LAKE CITY
★San Antonio, Tx. .... SAN ANTONIO
★San Diego, Ca. .... SAN DIEGO TAC
San Juan, P.R. TRSA-50
Santa Ana, Ca. TRSA-51
Savannah, Ga. TRSA-52
★Shreveport, La. .... MEMPHIS
Sioux Falls, S.D. TRSA-53
★South Bend, In. .... CHICAGO
†Spokane, Wa. .... SEATTLE
★Springfield, Il. .... ST LOUIS
Sumter, Shaw AFB, S.C. TRSA-54
★Syracuse, N.Y. .... NEW YORK
Tacoma, McChord AFB, Wa. TRSA-55
Tallahassee, Fl. TRSA-56
Tampa, Fl. TRSA-57
★Toledo, Oh. .... DETROIT
★Tucson, Az. .... PHOENIX
†Tulsa, Ok. .... KANSAS CITY
★Utica, N.Y. .... NEW YORK
Washington, D.C. TRSA-58
West Palm Beach, Fl. TRSA-59
Wichita, Ks. TRSA-60
Wilmington, N.C. TRSA-61
★Windsor Locks, Ct. .... NEW YORK
★Youngstown, Oh. .... DETROIT

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ASHEVILLE, NORTH CAROLINA
FIELD ELEV. 2162


V165
SOT
V185
V185E
23
V35W
V35-53
340°-159°
CONTACT ASHEVILLE
APPROACH CONTROL
125.8 226.8
15 NM
100/50
Black Mountain
40
Asheville Airpark (Pvt.)
R
ASHEVILLE
SNOWBIRD 1 MOA
100/60
8 NM
V35W-185E
100/60
Canton
SNOWBIRD 2 MOA
ASHEVILLE MUNI
100/80
100/SFC
V222
SUG
Hendersonville
100/60
Hendersonville Winkler
100/50
Brevard
26
V53
V185
V35
V222
Fairview
160°-339°
CONTACT ASHEVILLE
APPROACH CONTROL
124.65 351.8
DEPARTURE CONTROL FREQ.
ASSIGNED BEFORE TAKEOFF

LEGEND

▬	TERMINAL RADAR SERVICE AREA
100	CEILING IN HUNDREDS OF FEET MSL
70	FLOOR IN HUNDREDS OF FEET MSL

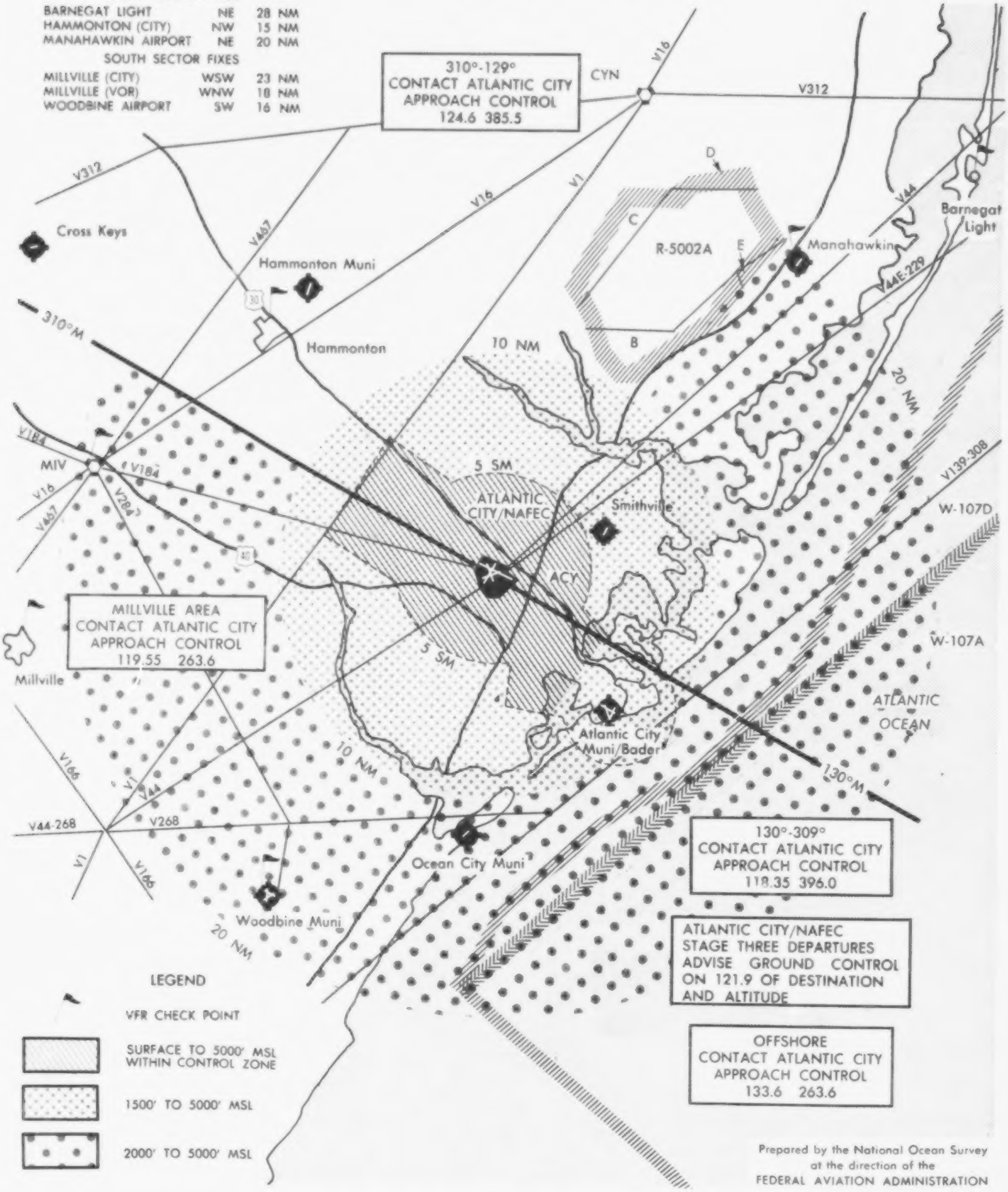
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ATLANTIC CITY, NEW JERSEY
ATLANTIC CITY NAFEC
FIELD ELEV 76' MSL

NORTH SECTOR FIXES		
BARNEGAT LIGHT	NE	28 NM
HAMMONTON (CITY)	NW	15 NM
MANAHAWKIN AIRPORT	NE	20 NM
SOUTH SECTOR FIXES		
MILLVILLE (CITY)	WSW	23 NM
MILLVILLE (VOR)	WNW	18 NM
WOODBINE AIRPORT	SW	16 NM


CYN
V16
V312
V1
V467
V16
Cross Keys
Hammonton Muni
30
Hammonton
D
C
R-5002A
E
B
Manahawkin
V44
Barnegat Light
V44E-229
310°M
10 NM
20 NM
V184
MIV
V184
V16
V467
V284
40
5 SM
ATLANTIC CITY/NAFEC
Smithville
ACY
V139-308
W-107D
W-107A
5 SM
Millville
ATLANTIC OCEAN
Atlantic City Muni/Bader
10 NM
130°M
V166
V1
V44
V44-268
V268
V1
V166
Ocean City Muni
Woodbine Muni
20 NM
LEGEND
VFR CHECK POINT
SURFACE TO 5000' MSL WITHIN CONTROL ZONE
1500' TO 5000' MSL
2000' TO 5000' MSL

310°-129°
CONTACT ATLANTIC CITY
APPROACH CONTROL
124.6 385.5

MILLVILLE AREA
CONTACT ATLANTIC CITY
APPROACH CONTROL
119.55 263.6

130°-309°
CONTACT ATLANTIC CITY
APPROACH CONTROL
118.35 396.0

ATLANTIC CITY/NAFEC
STAGE THREE DEPARTURES
ADVISE GROUND CONTROL
ON 121.9 OF DESTINATION
AND ALTITUDE

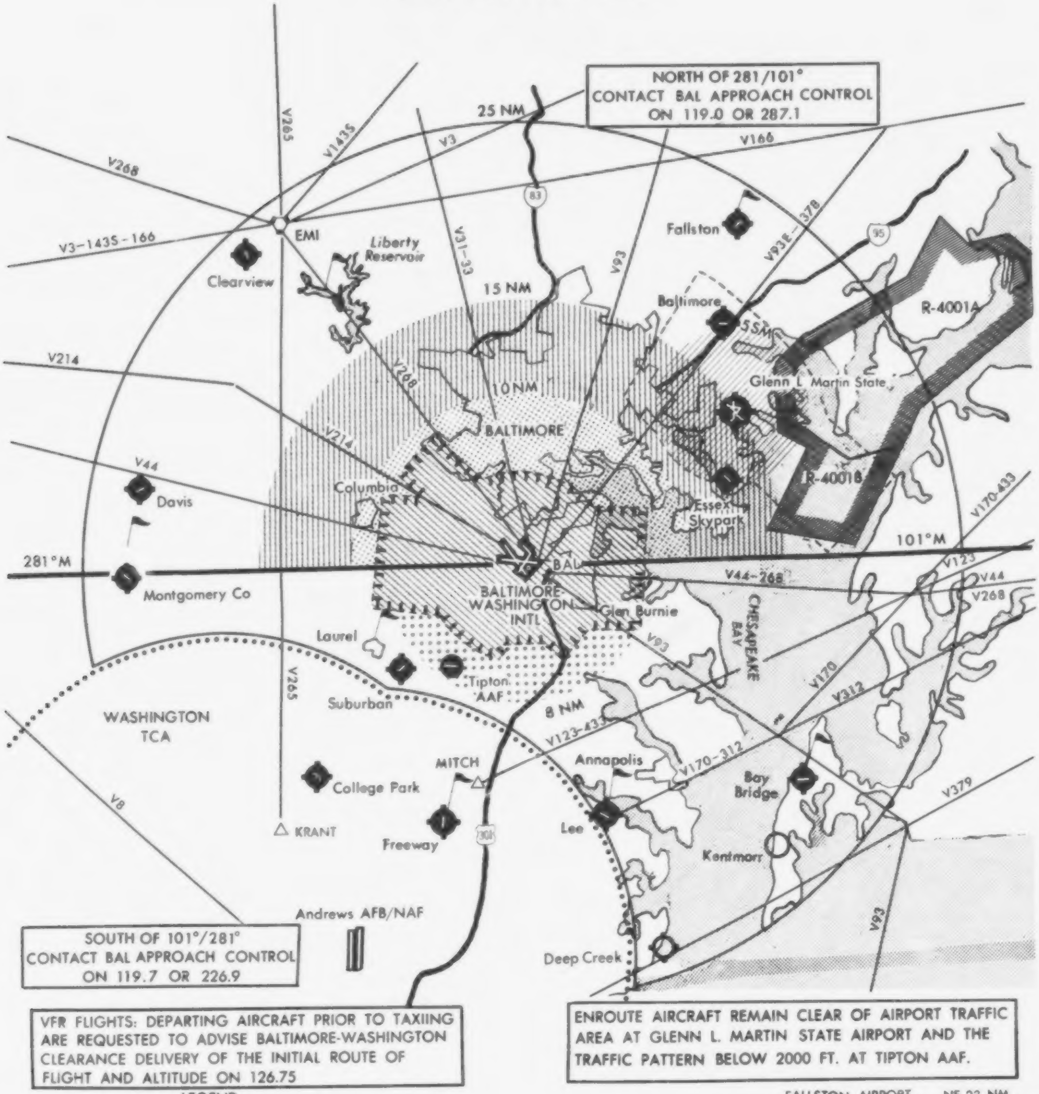
OFFSHORE
CONTACT ATLANTIC CITY
APPROACH CONTROL
133.6 263.6

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

17 DEC 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BALTIMORE, MARYLAND, BALTIMORE-WASHINGTON INTL AIRPORT
FIELD ELEV. 156′ MSL


25 NM
15 NM
10NM
8 NM
5NM
V265
V143S
V3
V166
V268
V3-143S-166
EMI
Clearview
Liberty Reservoir
V31-33
V93
83
V93E-378
95
Fallston
Baltimore
R-4001A
R-4001B
Glenn L Martin State
V214
V208
BALTIMORE
Columbia
Essex Skypark
V44
Davis
281°M
101°M
Montgomery Co
BAL
BALTIMORE-WASHINGTON INTL
Glen Burnie
V44-268
V170-433
V123
V268
CHESAPEAKE BAY
Laurel
Tipton AAF
Suburban
V93
V170
V312
WASHINGTON TCA
V123-433
V170-312
MITCH
Annapolis
College Park
Bay Bridge
V379
V8
KRANT
Freeway
301
Lee
Kentmorr
Andrews AFB/NAF
Deep Creek

NORTH OF 281/101°
CONTACT BAL APPROACH CONTROL
ON 119.0 OR 287.1

SOUTH OF 101°/281°
CONTACT BAL APPROACH CONTROL
ON 119.7 OR 226.9

VFR FLIGHTS: DEPARTING AIRCRAFT PRIOR TO TAXIING ARE REQUESTED TO ADVISE BALTIMORE-WASHINGTON CLEARANCE DELIVERY OF THE INITIAL ROUTE OF FLIGHT AND ALTITUDE ON 126.75

ENROUTE AIRCRAFT REMAIN CLEAR OF AIRPORT TRAFFIC AREA AT GLENN L. MARTIN STATE AIRPORT AND THE TRAFFIC PATTERN BELOW 2000 FT. AT TIPTON AAF.

LEGEND
- ⚑ VFR CHECK POINT
- ▨ AIRPORT TRAFFIC AREA
- ▨ SFC TO 5000′ SOUTH OF RWY 10/28 LOCALIZER
SFC TO 7000′ NORTH OF RWY 10/28 LOCALIZER
- ⋯ 2000′ TO 5000′
- ░ 2000′ TO 7000′
- ▥ 2500′ TO 7000′
- ▩ 3000′ TO 7,000′

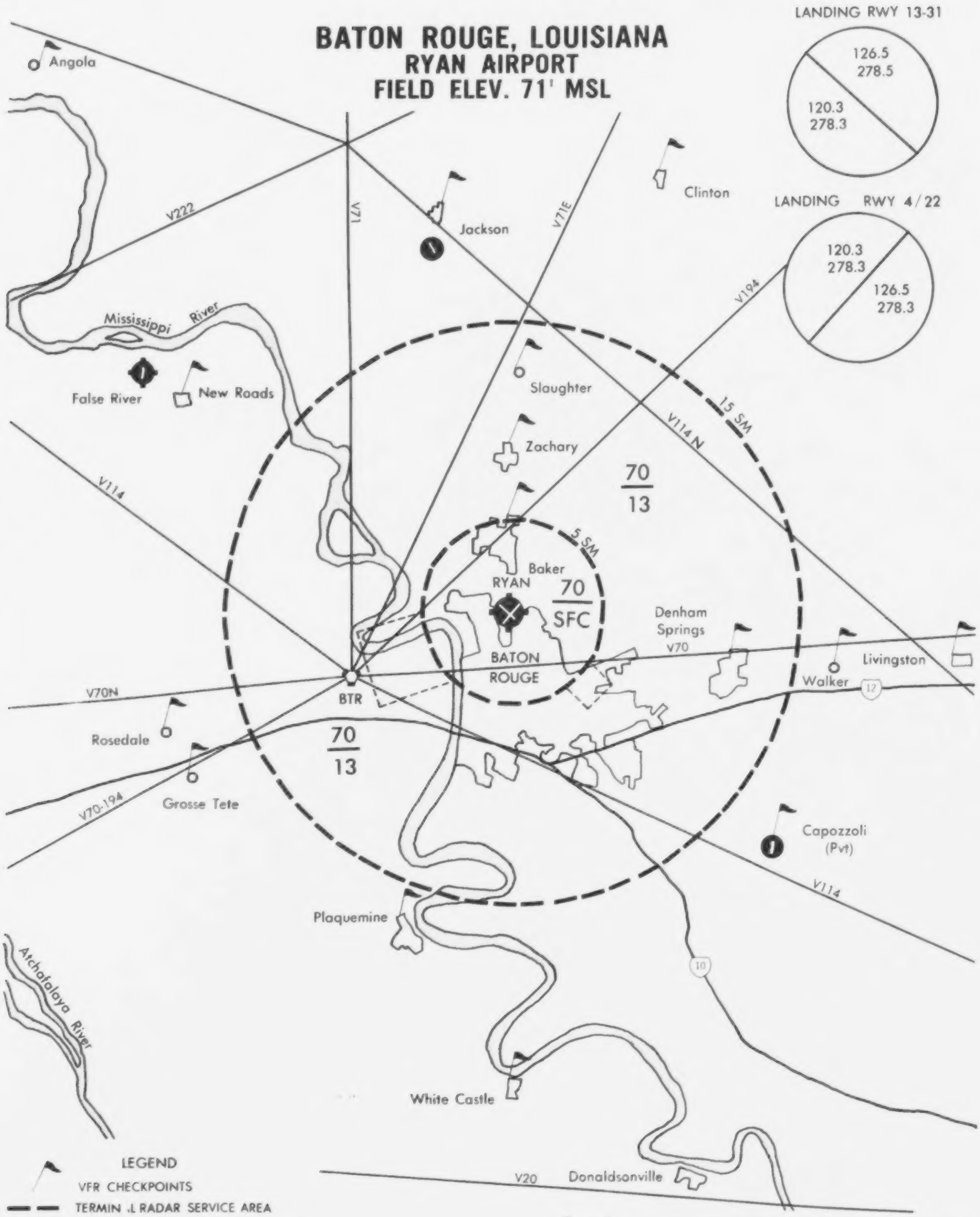
FALLSTON AIRPORT	NE 23 NM
BAY BRIDGE AIRPORT	SE 21 NM
LEE AIRPORT	SE 15 NM
FREEWAY AIRPORT	S 15 NM
LAUREL, MARYLAND	SW 11 NM
MONTGOMERY CO AIRPORT	W 23 NM
LIBERTY RESERVOIR	NW 17 NM

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TRSA-8

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BATON ROUGE, LOUISIANA
RYAN AIRPORT
FIELD ELEV. 71' MSL

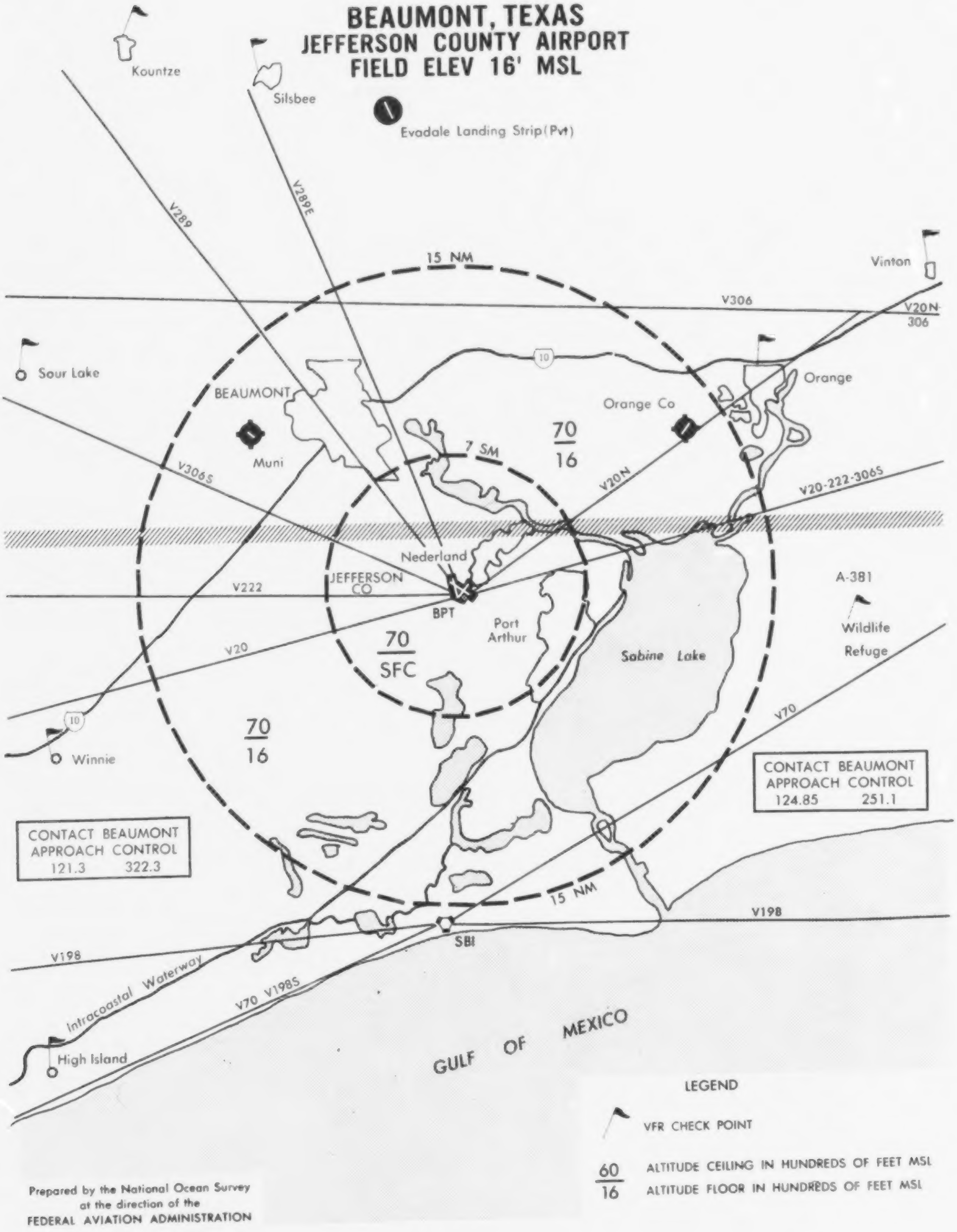

LANDING RWY 13-31
126.5
278.5
120.3
278.3
LANDING RWY 4/22
120.3
278.3
126.5
278.3
Angola
Clinton
Jackson
V222
V71
V71E
V194
Mississippi River
False River
New Roads
Slaughter
15 SM
V114 N
Zachary
70
13
V114
5 SM
Baker
RYAN
70
SFC
BATON ROUGE
Denham Springs
V70
Livingston
Walker
12
V70N
BTR
Rosedale
Grosse Tete
V70-194
70
13
Capozzoli (Pvt)
V114
Plaquemine
10
Atchafalaya River
White Castle
V20
Donaldsonville
Cane-Air
LEGEND
VFR CHECKPOINTS
TERMINAL RADAR SERVICE AREA
70 CEILING IN HUNDREDS OF FEET MSL
SFC FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BEAUMONT, TEXAS
JEFFERSON COUNTY AIRPORT
FIELD ELEV 16' MSL


Kountze
Silsbee
Evadale Landing Strip(Pvt)
V289
V289E
15 NM
Vinton
V306
V20N-306
Sour Lake
10
Orange
BEAUMONT
Orange Co
70
16
Muni
7 SM
V306S
V20N
V20-222-306S
Nederland
JEFFERSON CO
A-381
V222
BPT
Port Arthur
Wildlife Refuge
V20
70
SFC
Sabine Lake
10
70
16
V70
Winnie
CONTACT BEAUMONT APPROACH CONTROL 124.85 251.1
CONTACT BEAUMONT APPROACH CONTROL 121.3 322.3
15 NM
V198
SBI
V198
Intracoastal Waterway
V70 V198S
High Island
GULF OF MEXICO

LEGEND

VFR CHECK POINT

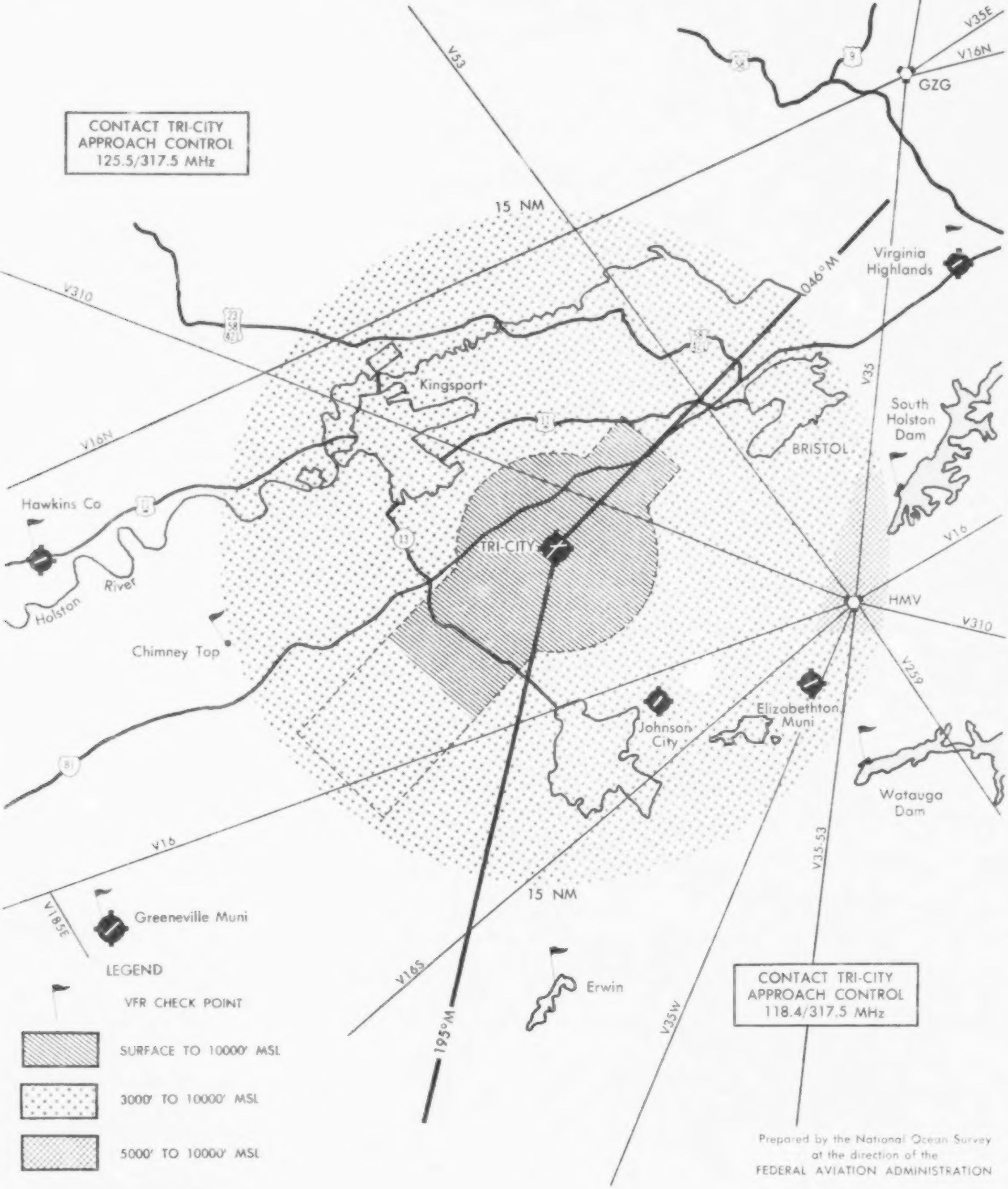
60	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
16	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

28 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

BRISTOL, TENNESSEE
TRI-CITY AIRPORT
FIELD ELEV. 1519' MSL


CONTACT TRI-CITY APPROACH CONTROL 125.5/317.5 MHz
V53
V35
V35E
V16N
GZG
58
9
15 NM
046°M
Virginia Highlands
V310
23
58
421
Kingsport
V16N
11
BRISTOL
South Holston Dam
V35
Hawkins Co
11
Holston River
33
TRI-CITY
V16
HMV
V310
Chimney Top
V259
Johnson City
Elizabethton Muni
Watauga Dam
81
V16
V35-53
V185E
15 NM
Greeneville Muni
LEGEND
V16S
Erwin
VFR CHECK POINT
195°M
V35W
CONTACT TRI-CITY APPROACH CONTROL 118.4/317.5 MHz
SURFACE TO 10000' MSL
3000' TO 10000' MSL
5000' TO 10000' MSL

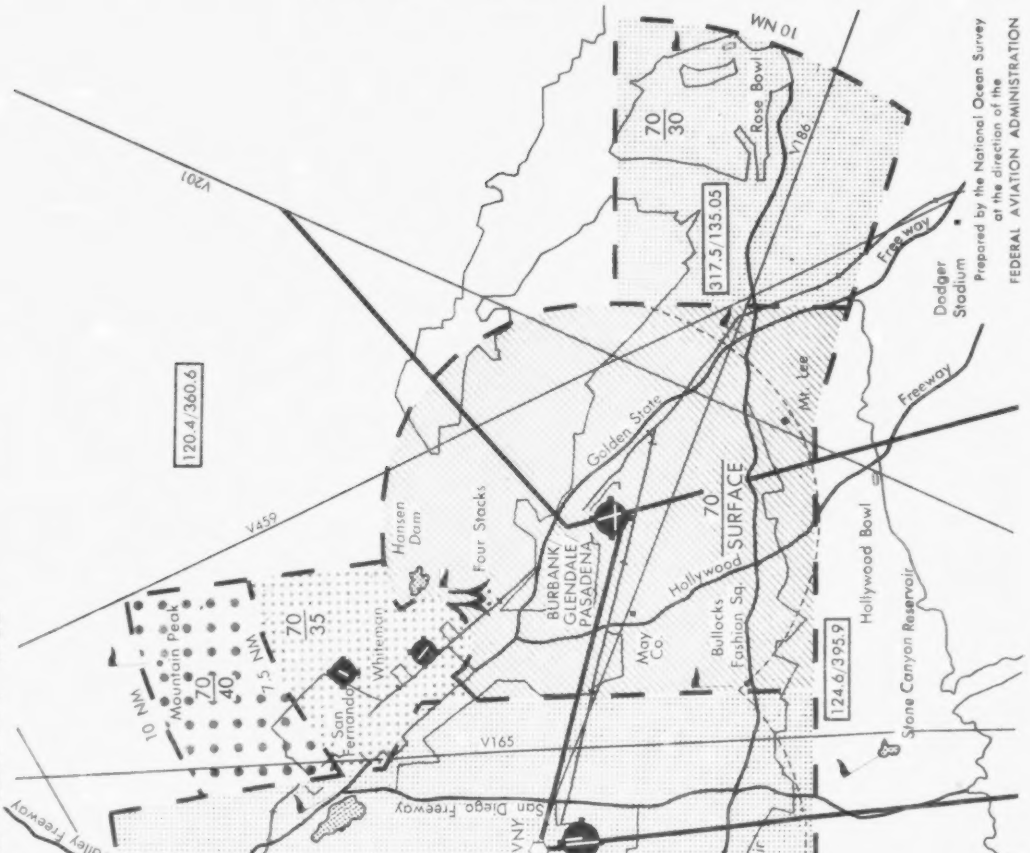
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

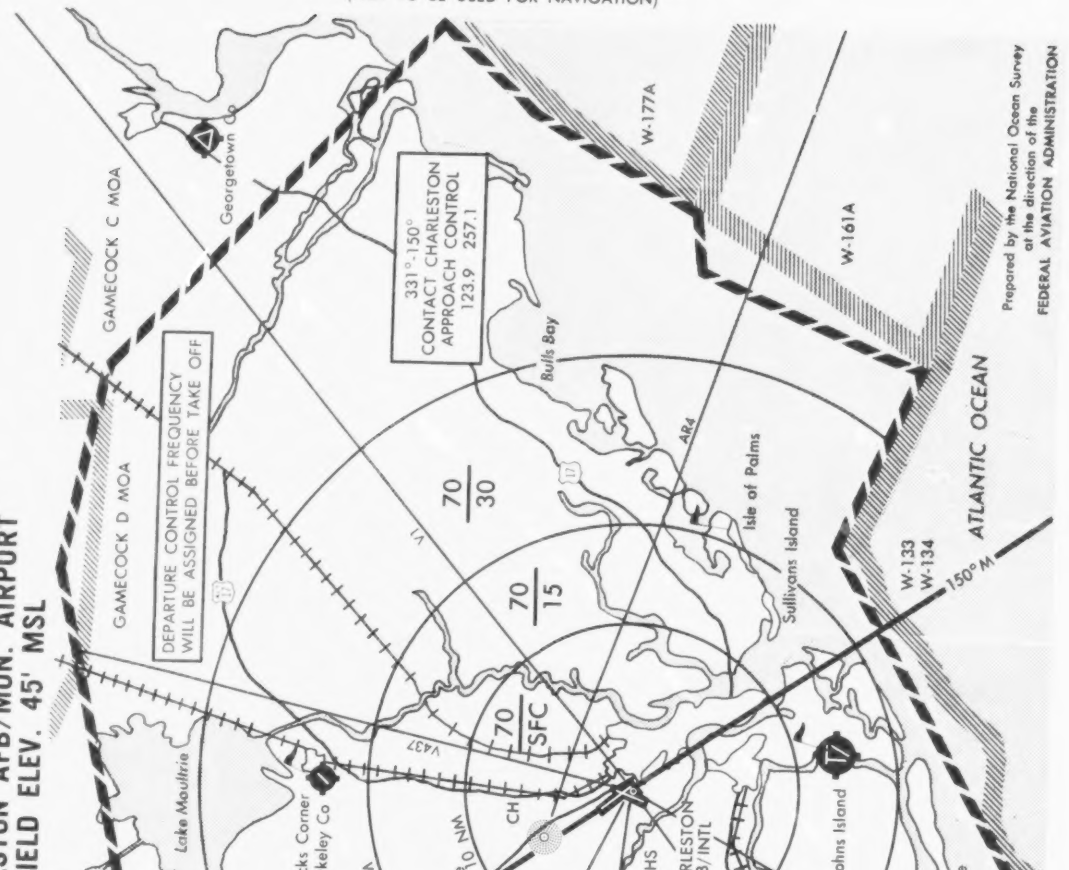
BURBANK, CALIF.
BURBANK/GLENDALE/PASADENA AIRPORT
FIELD ELEV. 774' MSL


120.4/360.6
120.4/360.6
124.6/395.9
134.2/360.6
317.5/135.05
70/30
70/35
70/40
70/30
70/30
70 SURFACE
10 NM
7.5 NM
10 NM
15 NM
V201
V459
V165
V23
V518
V518
V326
V186
V186
Newhall
Golden State
Freeway
Antelope Valley Freeway
Oat Mountain
Van Norman Reservoir
San Fernando
Mountain Peak
Whiteman
Hansen Dam
Four Stacks
BURBANK GLENDALE PASADENA
Golden State
Hollywood
May Co.
Bullocks Fashion Sq.
Mt. Lee
Rose Bowl
Freeway
Freeway
Dodger Stadium
Hollywood Bowl
Stone Canyon Reservoir
San Diego Freeway
VNY
Van Nuys
Encino Reservoir
Ventura Freeway
Canoga Park
Chatsworth Reservoir
Simi Valley Freeway
Santa Susana
Water tank
LEGEND
VFR CHECK POINTS
TERMINAL RADAR SERVICE AREA
70/30 CEILING IN HUNDREDS OF FEET MSL FLOOR IN HUNDREDS OF FEET MSL
▨ SURFACE TO 7000'
3500' TO 7000'
3000' TO 7000'
4000' TO 7000'
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLESTON, SOUTH CAROLINA
CHARLESTON AFB/MUN. AIRPORT
FIELD ELEV. 45' MSL



331°-150°
CONTACT CHARLESTON
APPROACH CONTROL
123.9 257.1
DEPARTURE CONTROL FREQUENCY
WILL BE ASSIGNED BEFORE TAKE OFF
151°-330°
CONTACT CHARLESTON
APPROACH CONTROL
119.3 319.8
GAMECOCK C MOA
GAMECOCK D MOA
Georgetown Co.
W-177A
W-161A
W-133
W-134
ATLANTIC OCEAN
Bulls Bay
Isle of Palms
Sullivans Island
AR4
V1
V437
V18-53
V185
V3
V157
17
26
70
30
70
15
70
SFC
70
15
70
30
10 NM
15 NM
25 NM
30 NM
330° M
150° M
Lake Marion
Lake Moultrie
Moncks Corner
Berkeley Co
Summerville
CH
CHS
CHARLESTON
AFB/INTL
Johns Island
Rockville
Rantowles
Mill &
Water Tower
Jacksonboro
BAGGY
Harleyville
Cement Plant
29 NM
St. George Muni
Walterboro
Muni
LEGEND
VFR CHECKPOINT
70
SFC
CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL
APPROACH CONTROL BOUNDARY

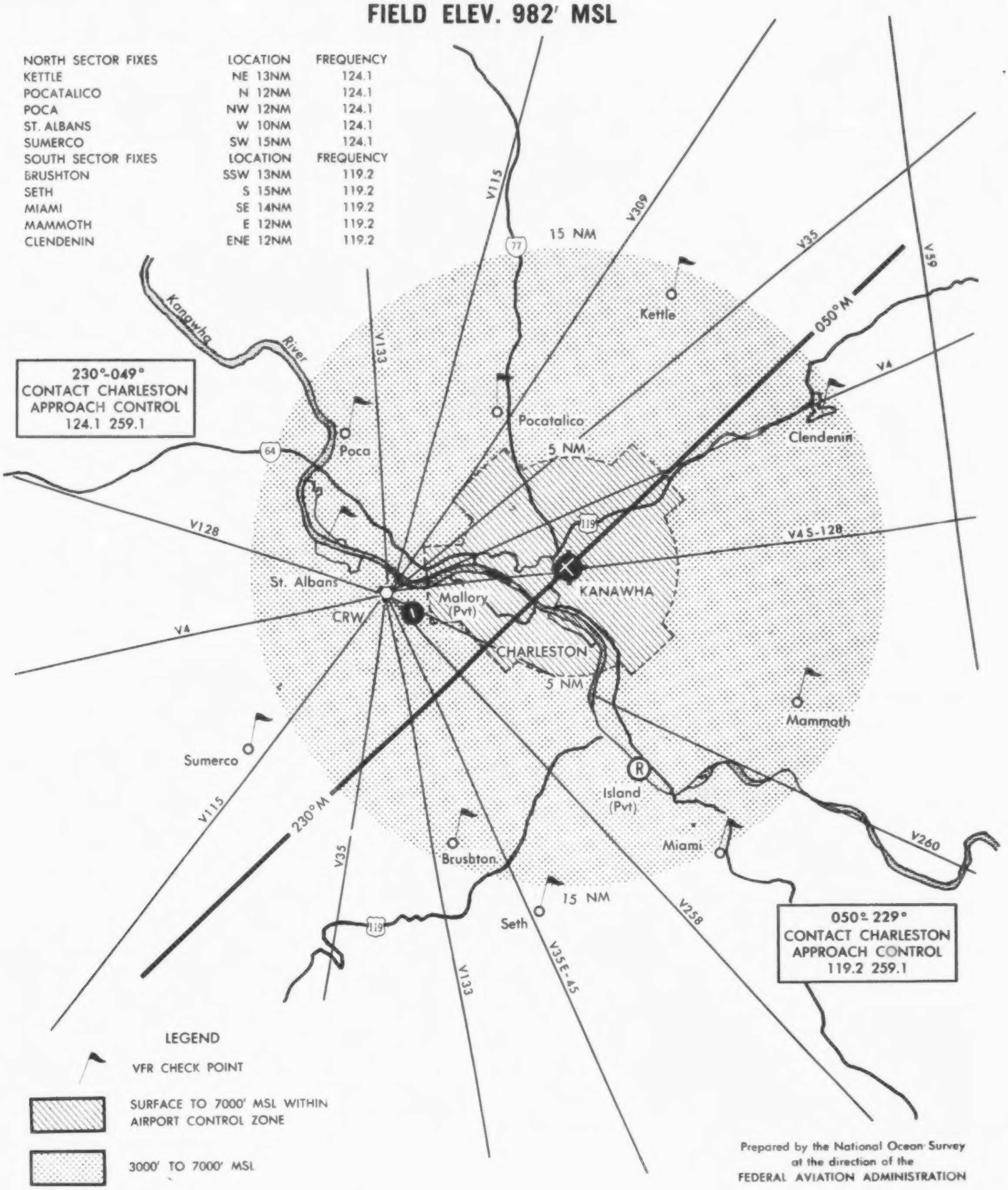
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLESTON, WEST VIRGINIA
KANAWHA AIRPORT
FIELD ELEV. 982′ MSL

NORTH SECTOR FIXES	LOCATION	FREQUENCY
KETTLE	NE 13NM	124.1
POCATALICO	N 12NM	124.1
POCA	NW 12NM	124.1
ST. ALBANS	W 10NM	124.1
SUMERCO	SW 15NM	124.1
SOUTH SECTOR FIXES	LOCATION	FREQUENCY
BRUSHTON	SSW 13NM	119.2
SETH	S 15NM	119.2
MIAMI	SE 14NM	119.2
MAMMOTH	E 12NM	119.2
CLENDENIN	ENE 12NM	119.2


V115
V309
77
15 NM
V35
V59
Kettle
050°M
V133
Kanawha
River
V4
Pocatalico
Clendenin
Poca
64
5 NM
119
V128
V4S-128
St. Albans
KANAWHA
Mallory
(Pvt)
CRW
V4
CHARLESTON
5 NM
Mammoth
Sumerco
R
Island
(Pvt)
V115
230°M
Miami
V260
V35
Brushton
15 NM
V258
Seth
119
V133
V35E-45

230°-049°
CONTACT CHARLESTON
APPROACH CONTROL
124.1 259.1

050°-229°
CONTACT CHARLESTON
APPROACH CONTROL
119.2 259.1

LEGEND

VFR CHECK POINT

▨ SURFACE TO 7000′ MSL WITHIN AIRPORT CONTROL ZONE

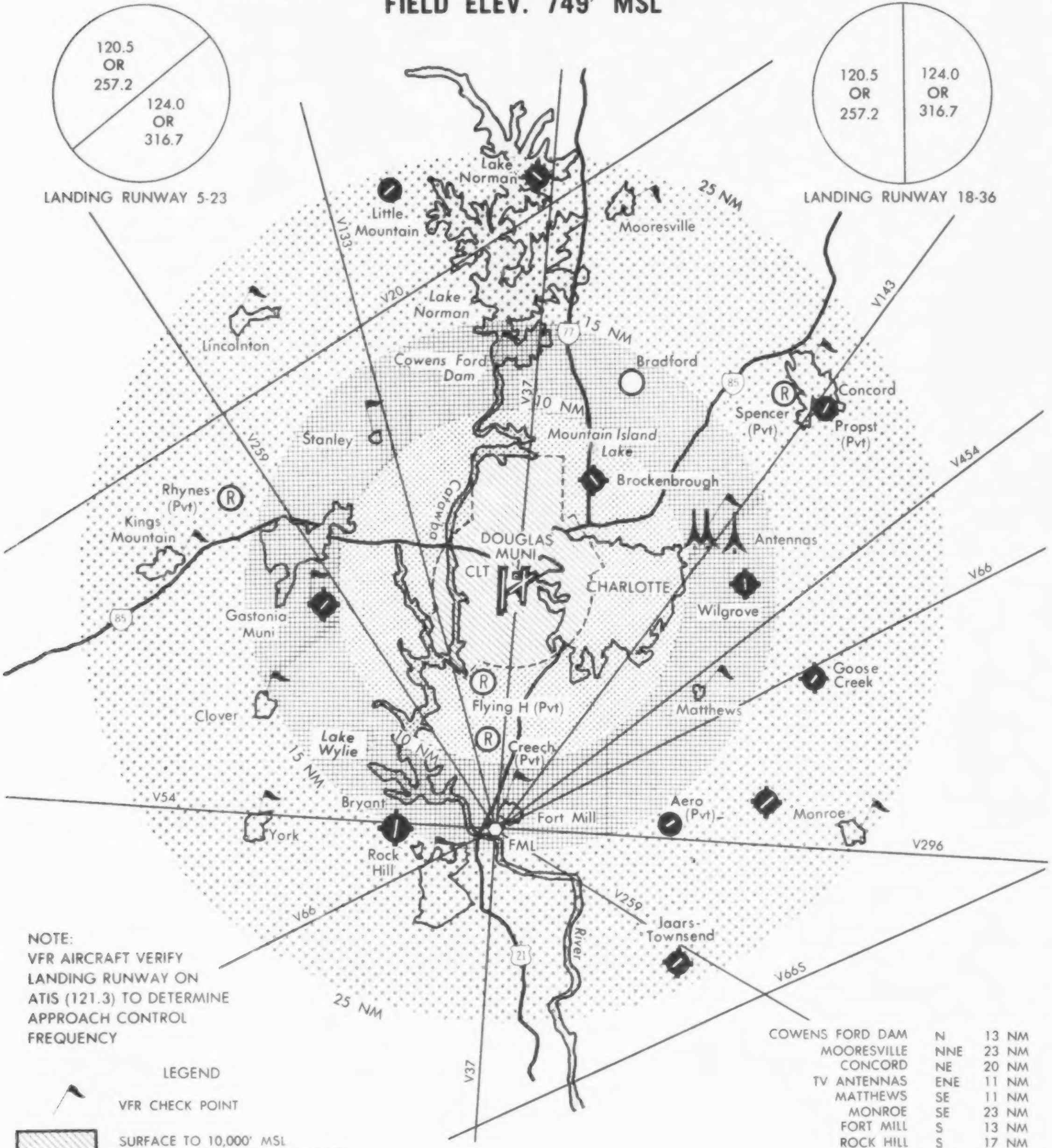
░ 3000′ TO 7000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CHARLOTTE, N.C. DOUGLAS MUNICIPAL AIRPORT
FIELD ELEV. 749′ MSL


120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 5-23
120.5
OR
257.2
124.0
OR
316.7
LANDING RUNWAY 18-36
Lake Norman
Little Mountain
Mooresville
25 NM
V133
V20
Lake Norman
15 NM
Lincolnton
Cowens Ford Dam
Bradford
V143
85
Spencer (Pvt)
Concord
Propst (Pvt)
V37
10 NM
Mountain Island Lake
Stanley
V259
Brockenbrough
V454
Rhynes (Pvt)
Kings Mountain
Catawba
DOUGLAS MUNI
CLT
CHARLOTTE
Antennas
Wilgrove
V66
85
Gastonia Muni
Goose Creek
Flying H (Pvt)
Matthews
Clover
Lake Wylie
10 NM
15 NM
Creech (Pvt)
V54
Bryant
Fort Mill
Aero (Pvt)
Monroe
York
Rock Hill
FML
V296
V259
V66
Jaars-Townsend
21
River
V66S
25 NM
V37

NOTE:
VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (121.3) TO DETERMINE APPROACH CONTROL FREQUENCY

LEGEND

⚑ VFR CHECK POINT

▨ SURFACE TO 10,000′ MSL WITHIN AIRPORT CONTROL ZONE

▒ 1460′ MSL TO 10,000′ MSL

▓ 2300′ MSL TO 10,000′ MSL

░ 5000′ MSL TO 10,000′ MSL

COWENS FORD DAM	N	13 NM
MOORESVILLE	NNE	23 NM
CONCORD	NE	20 NM
TV ANTENNAS	ENE	11 NM
MATTHEWS	SE	11 NM
MONROE	SE	23 NM
FORT MILL	S	13 NM
ROCK HILL	S	17 NM
YORK	SW	21 NM
CLOVER	SW	16 NM
GASTONIA	W	11 NM
KINGS MOUNTAIN	W	20 NM
STANLEY	NW	12 NM
LINCOLNTON	NW	22 NM

Prepared by the National Ocean Survey
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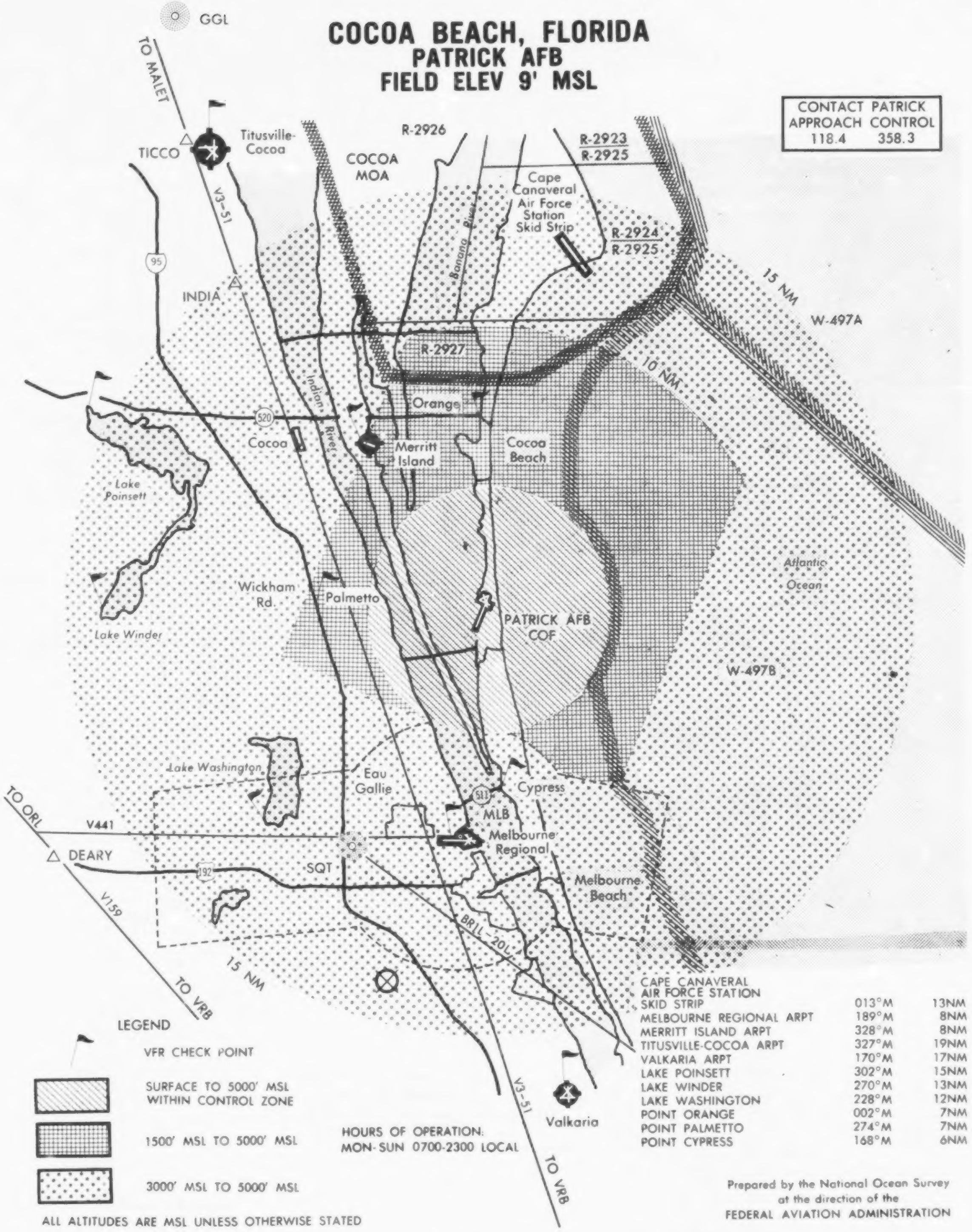
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, FLORIDA
PATRICK AFB
FIELD ELEV 9' MSL

CONTACT PATRICK
APPROACH CONTROL
118.4 358.3


GGL
TO MALET
TICCO
Titusville-Cocoa
V3-51
95
INDIA
R-2926
COCOA MOA
R-2923
R-2925
Cape Canaveral Air Force Station Skid Strip
R-2924
R-2925
Banana River
15 NM
W-497A
R-2927
10 NM
Orange
520
Cocoa
Indian River
Merritt Island
Cocoa Beach
Lake Poinsett
Wickham Rd.
Palmetto
PATRICK AFB COF
Atlantic Ocean
Lake Winder
W-497B
Lake Washington
Eau Gallie
513
Cypress
MLB
Melbourne Regional
TO ORL
V441
DEARY
SQT
192
Melbourne Beach
V159
BRLL 20L
15 NM
TO VRB
V3-51
Valkaria
TO VRB

CAPE CANAVERAL AIR FORCE STATION SKID STRIP	013°M	13NM
MELBOURNE REGIONAL ARPT	189°M	8NM
MERRITT ISLAND ARPT	328°M	8NM
TITUSVILLE-COCOA ARPT	327°M	19NM
VALKARIA ARPT	170°M	17NM
LAKE POINSETT	302°M	15NM
LAKE WINDER	270°M	13NM
LAKE WASHINGTON	228°M	12NM
POINT ORANGE	002°M	7NM
POINT PALMETTO	274°M	7NM
POINT CYPRESS	168°M	6NM

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 5000' MSL WITHIN CONTROL ZONE
▩	1500' MSL TO 5000' MSL
⬚	3000' MSL TO 5000' MSL

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

HOURS OF OPERATION:
MON-SUN 0700-2300 LOCAL

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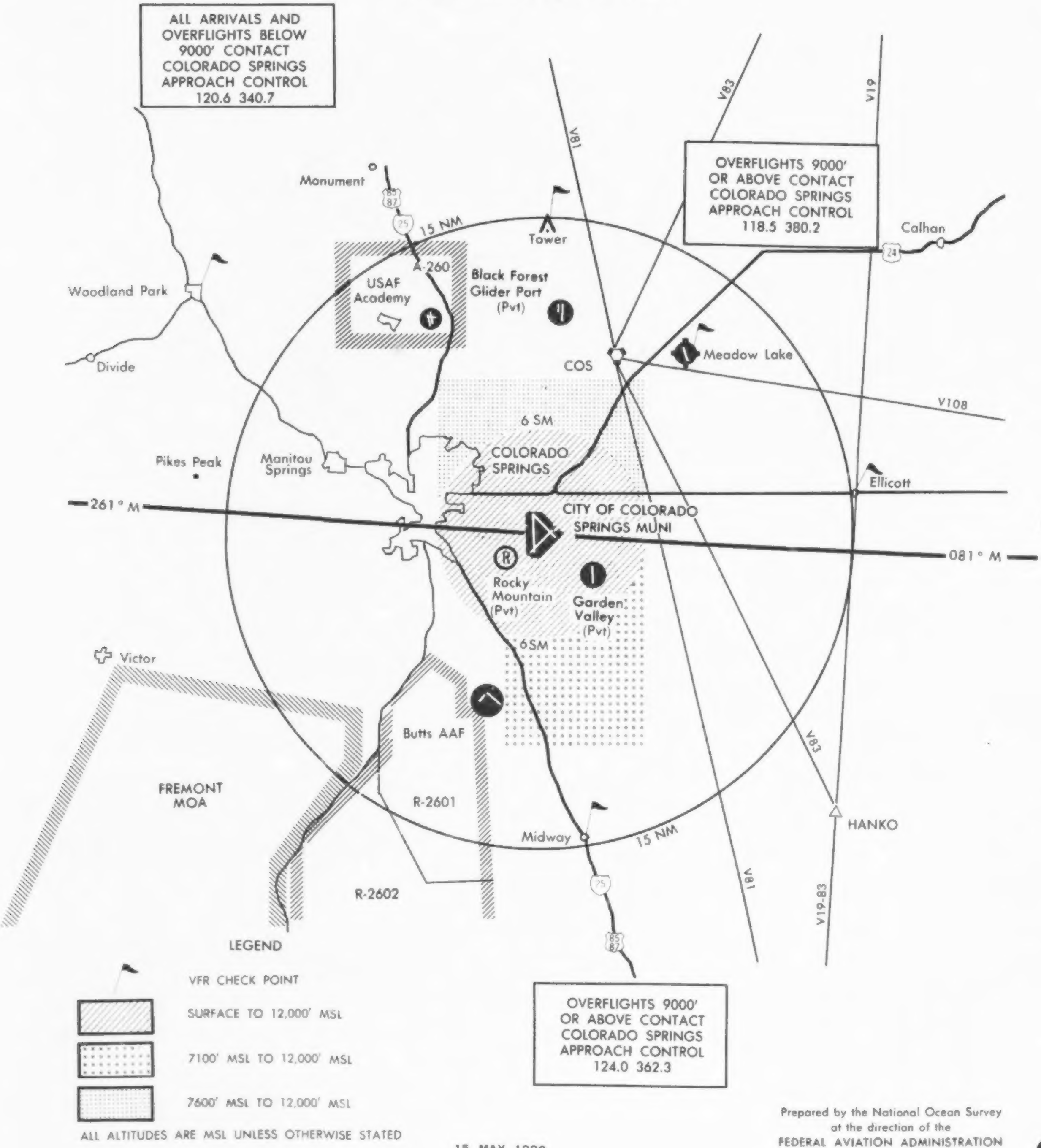
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLORADO SPRINGS, COLORADO
FIELD ELEV. 6172′ MSL


Monument
85
87
25
15 NM
Tower
A-260
USAF Academy
Black Forest Glider Port (Pvt)
Woodland Park
Divide
COS
Meadow Lake
V83
V81
V19
Calhan
24
V108
6 SM
COLORADO SPRINGS
Pikes Peak
Manitou Springs
Ellicott
261° M
CITY OF COLORADO SPRINGS MUNI
081° M
R
Rocky Mountain (Pvt)
Garden Valley (Pvt)
6SM
Victor
Butts AAF
V83
FREMONT MOA
R-2601
HANKO
Midway
15 NM
V81
25
V19-83
R-2602
85
87

ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL 120.6 340.7

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 118.5 380.2

OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 124.0 362.3

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 12,000′ MSL
- ▦ 7100′ MSL TO 12,000′ MSL
- ░ 7600′ MSL TO 12,000′ MSL

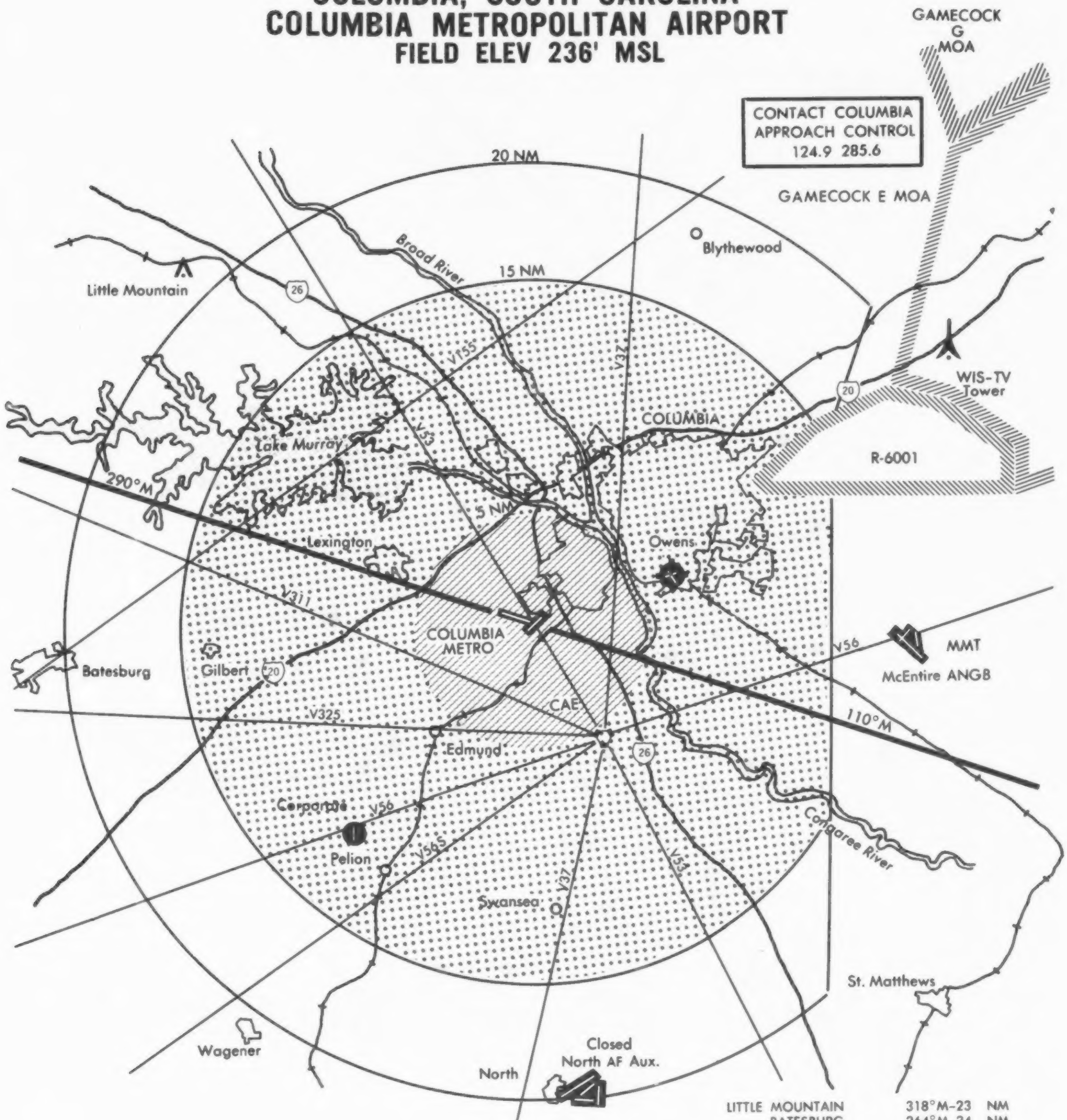
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

15 MAY 1980

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBIA, SOUTH CAROLINA
COLUMBIA METROPOLITAN AIRPORT
FIELD ELEV 236' MSL


GAMECOCK G MOA
GAMECOCK E MOA
20 NM
15 NM
5 NM
Blythewood
Little Mountain
Broad River
26
V155
V37
V53
WIS-TV Tower
20
COLUMBIA
R-6001
Lake Murray
290°M
Lexington
Owens
V311
COLUMBIA METRO
V56
MMT
McEntire ANGB
Batesburg
Gilbert
20
CAE
110°M
V325
Edmund
26
Corporate
V56
Pelion
V565
V37
V53
Congaree River
Swansea
St. Matthews
Wagener
Closed North AF Aux.
North

CONTACT COLUMBIA
APPROACH CONTROL
124.9 285.6

CONTACT COLUMBIA
APPROACH CONTROL
118.2 338.2

LITTLE MOUNTAIN	318°M–23 NM
BATESBURG	264°M–24 NM
WAGENER	200°M–22 NM
NORTH AFB AUX.	180°M–21 NM
ST. MATTHEWS	130°M–28 NM
McENTIRE ANGB	095°M–17 NM
WIS TV	060°M–21.3 NM
BLYTHEWOOD	010°M–20 NM

LEGEND

▨ SURFACE TO 6000 MSL

⠿ 2000 TO 6000 MSL

Prepared by the National Ocean Survey
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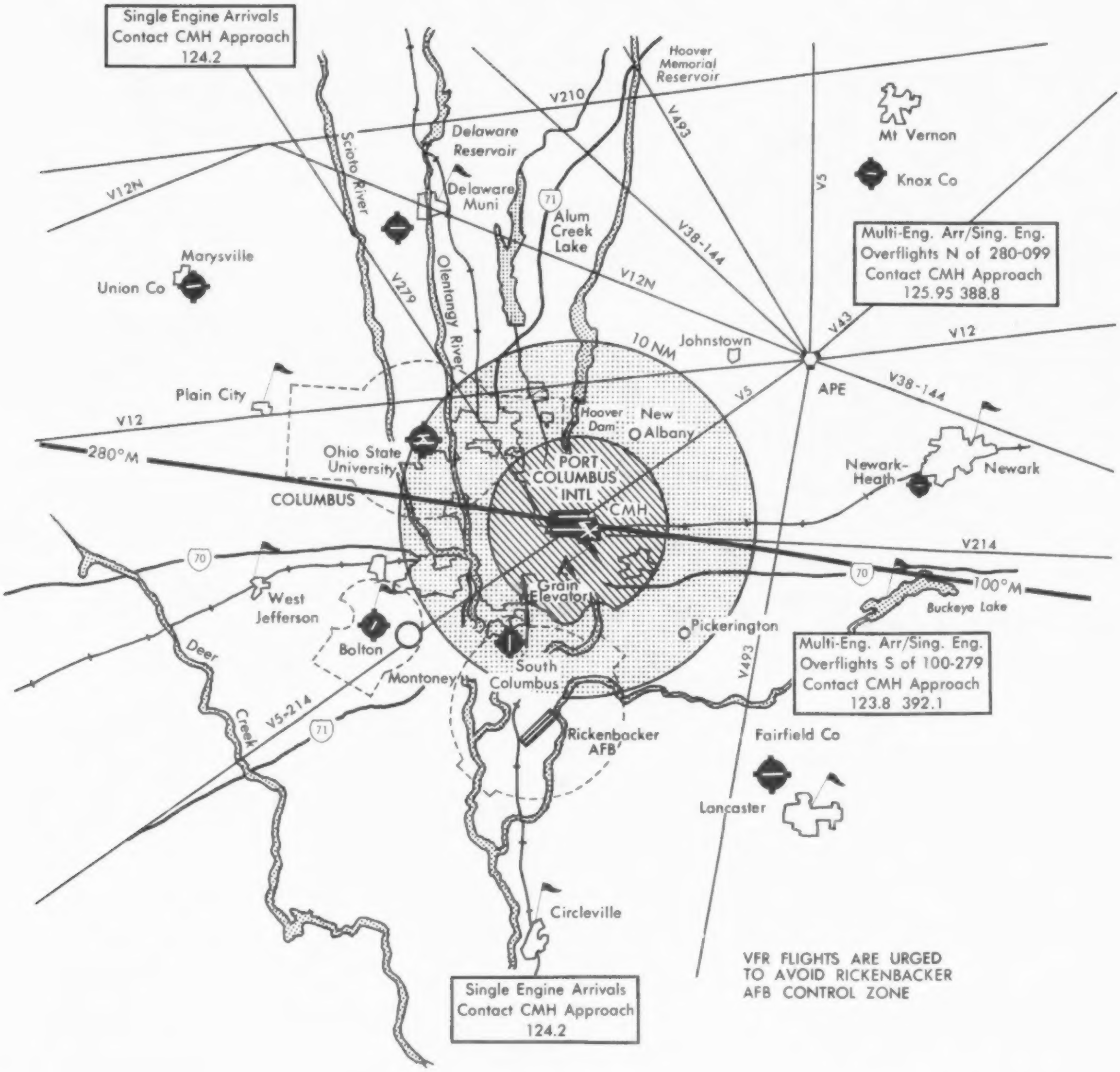
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TRSA-18

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS, OHIO, PORT COLUMBUS INTL AIRPORT
FIELD ELEV. 816′ MSL


Hoover Memorial Reservoir
V210
V493
Mt Vernon
Knox Co
V5
Delaware Reservoir
Delaware Muni
Scioto River
V12N
71
Alum Creek Lake
V38-144
Marysville
Union Co
V279
Olentangy River
V12N
V43
V12
10 NM
Johnstown
APE
V38-144
Plain City
V5
Hoover Dam
New Albany
V12
280°M
Ohio State University
PORT COLUMBUS INTL
CMH
Newark-Heath
Newark
COLUMBUS
70
V214
70
100°M
Buckeye Lake
Grain Elevator
West Jefferson
Bolton
Pickerington
V493
Deer Creek
Montoney
South Columbus
V5-214
71
Rickenbacker AFB
Fairfield Co
Lancaster
Circleville

Single Engine Arrivals
Contact CMH Approach
124.2

Multi-Eng. Arr/Sing. Eng.
Overflights N of 280-099
Contact CMH Approach
125.95 388.8

Multi-Eng. Arr/Sing. Eng.
Overflights S of 100-279
Contact CMH Approach
123.8 392.1

Single Engine Arrivals
Contact CMH Approach
124.2

VFR FLIGHTS ARE URGED
TO AVOID RICKENBACKER
AFB CONTROL ZONE

LEGEND

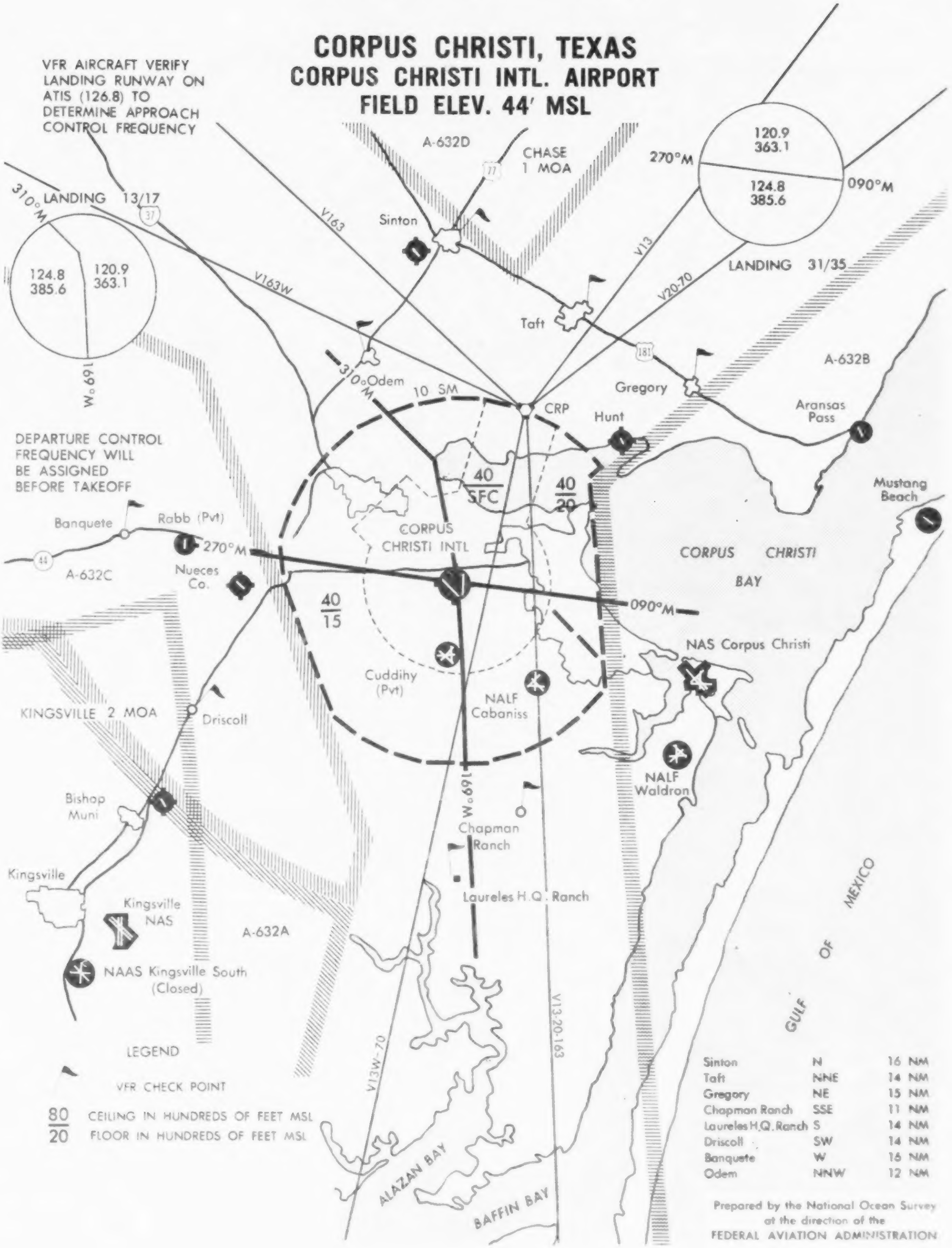
- ⚑ VFR CHECK POINT
- ▨ SURFACE TO 6500 MSL WITHIN AIRPORT CONTROL ZONE
- ░ 3500 TO 6500 MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CORPUS CHRISTI, TEXAS
CORPUS CHRISTI INTL. AIRPORT
FIELD ELEV. 44′ MSL


VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (126.8) TO DETERMINE APPROACH CONTROL FREQUENCY
LANDING 13/17
310°M
124.8
385.6
120.9
363.1
169°M
A-632D
CHASE 1 MOA
77
37
V163
V163W
Sinton
270°M
120.9
363.1
124.8
385.6
090°M
V13
V20-70
LANDING 31/35
Taft
181
A-632B
Gregory
Aransas Pass
Odem
310°M
10 SM
CRP
Hunt
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
40
SFC
40
20
Mustang Beach
Banquete
Rabb (Pvt)
270°M
44
A-632C
Nueces Co.
CORPUS CHRISTI INTL
CORPUS CHRISTI BAY
090°M
40
15
NAS Corpus Christi
Cuddihy (Pvt)
NALF Cabaniss
KINGSVILLE 2 MOA
Driscoll
NALF Waldron
Bishop Muni
169°M
Chapman Ranch
Kingsville
Laureles H.Q. Ranch
Kingsville NAS
A-632A
GULF OF MEXICO
NAAS Kingsville South (Closed)
V13W-70
V13-20-163
ALAZAN BAY
BAFFIN BAY

LEGEND

VFR CHECK POINT

80 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

Sinton	N	16 NM
Taft	NNE	14 NM
Gregory	NE	15 NM
Chapman Ranch	SSE	11 NM
Laureles H.Q. Ranch	S	14 NM
Driscoll	SW	14 NM
Banquete	W	16 NM
Odem	NNW	12 NM

Prepared by the National Ocean Survey
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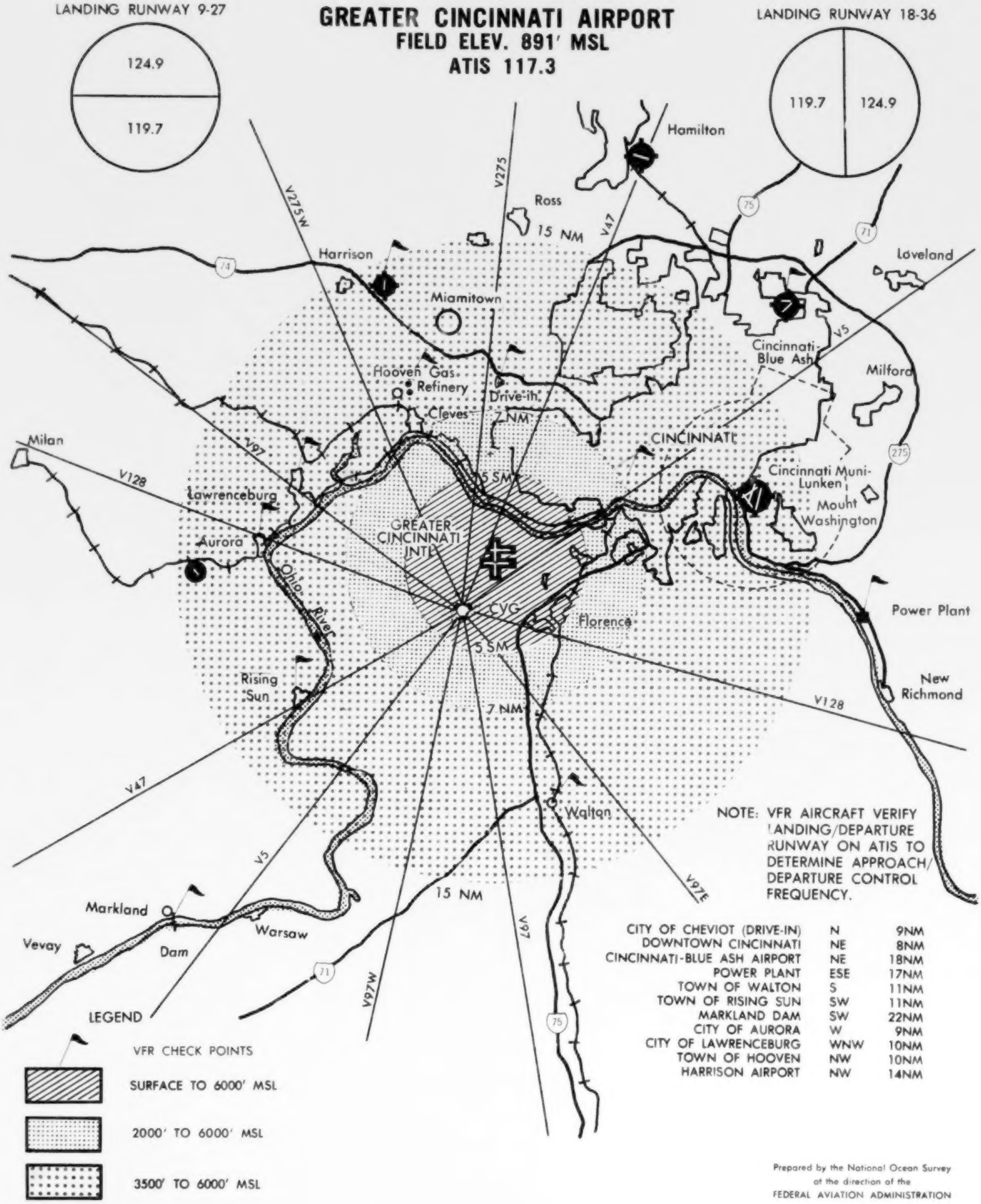
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

COVINGTON, KENTUCKY

GREATER CINCINNATI AIRPORT

FIELD ELEV. 891′ MSL
ATIS 117.3


LANDING RUNWAY 9-27
124.9
119.7
LANDING RUNWAY 18-36
119.7
124.9
Hamilton
Ross
V275
V275W
V47
15 NM
75
71
Loveland
Harrison
74
Miamitown
V5
Cincinnati-Blue Ash
Milford
Hooven Gas Refinery
Drive-in
Cleves
7 NM
CINCINNATI
275
Milan
V97
V128
Lawrenceburg
5 SM
Cincinnati Muni-Lunken
Mount Washington
Aurora
GREATER CINCINNATI INTL
Ohio River
CVG
Florence
Power Plant
Rising Sun
5 SM
7 NM
New Richmond
V128
V47
Walton
V5
15 NM
V97E
Markland
Warsaw
Vevay
Dam
V97
V97W
71
75
LEGEND
VFR CHECK POINTS
SURFACE TO 6000′ MSL
2000′ TO 6000′ MSL
3500′ TO 6000′ MSL

NOTE: VFR AIRCRAFT VERIFY LANDING/DEPARTURE RUNWAY ON ATIS TO DETERMINE APPROACH/DEPARTURE CONTROL FREQUENCY.

CITY OF CHEVIOT (DRIVE-IN)	N	9NM
DOWNTOWN CINCINNATI	NE	8NM
CINCINNATI-BLUE ASH AIRPORT	NE	18NM
POWER PLANT	ESE	17NM
TOWN OF WALTON	S	11NM
TOWN OF RISING SUN	SW	11NM
MARKLAND DAM	SW	22NM
CITY OF AURORA	W	9NM
CITY OF LAWRENCEBURG	WNW	10NM
TOWN OF HOOVEN	NW	10NM
HARRISON AIRPORT	NW	14NM

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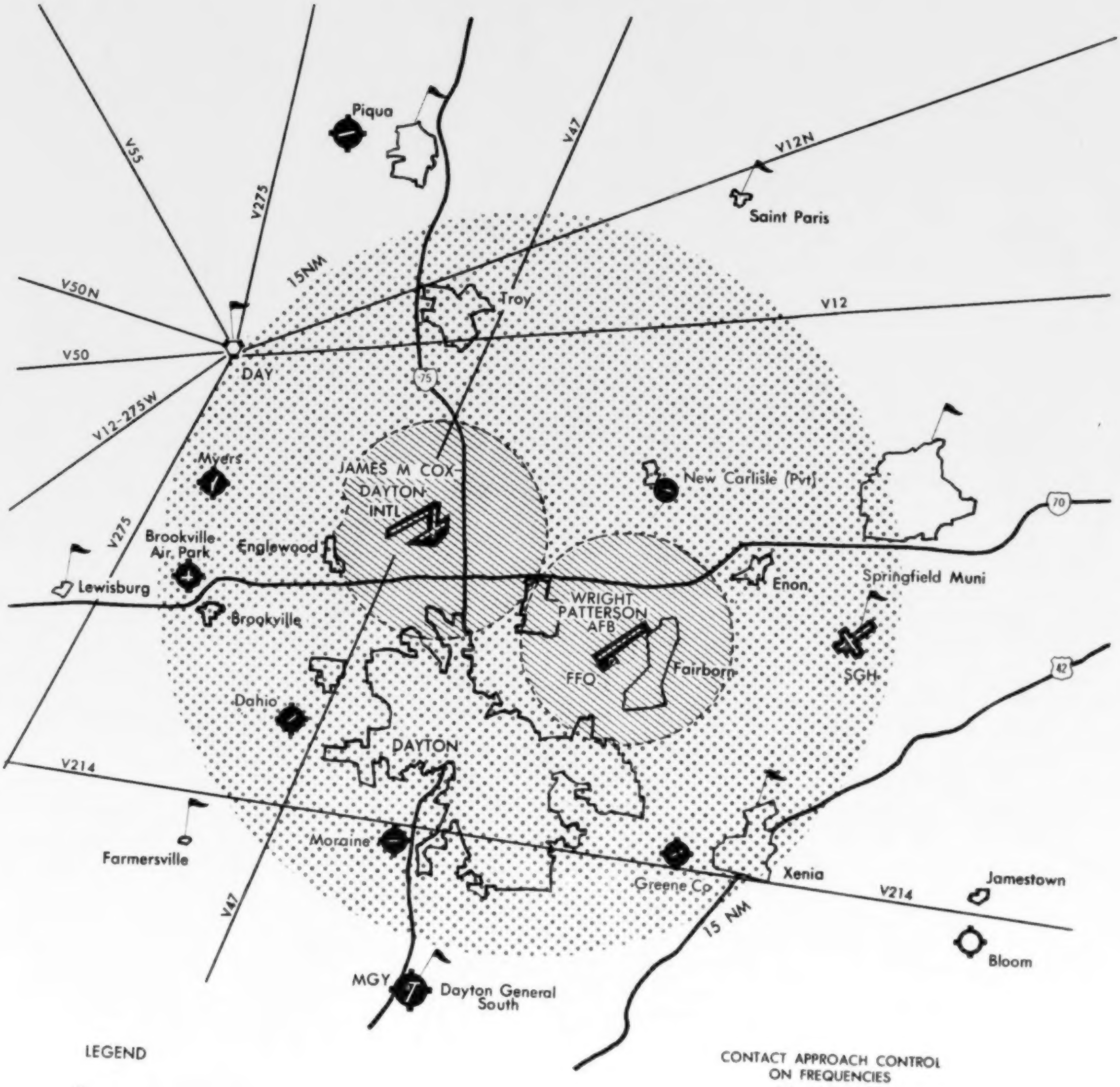
9 AUG 1979

DAYTON, OHIO JAMES M. COX DAYTON INTERNATIONAL AND WRIGHT PATTERSON AFB

FIELD ELEV 1008' MSL


Piqua
V55
V275
V47
V12N
Saint Paris
15NM
V50N
Troy
V12
V50
DAY
75
V12-275W
Myers
JAMES M COX-DAYTON INTL
New Carlisle (Pvt)
70
V275
Brookville Air Park
Englewood
Lewisburg
Enon
Springfield Muni
Brookville
WRIGHT PATTERSON AFB
FFO
Fairborn
SGH
42
Dahio
DAYTON
V214
Farmersville
Moraine
Greene Co
Xenia
V214
Jamestown
V47
15 NM
Bloom
MGY
Dayton General South

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL
WITHIN AIRPORT CONTROL ZONE

⠿ 3000' MSL TO 6000' MSL

CONTACT APPROACH CONTROL
ON FREQUENCIES
126.5 (070°-239°)
118.0 (240°-069°)

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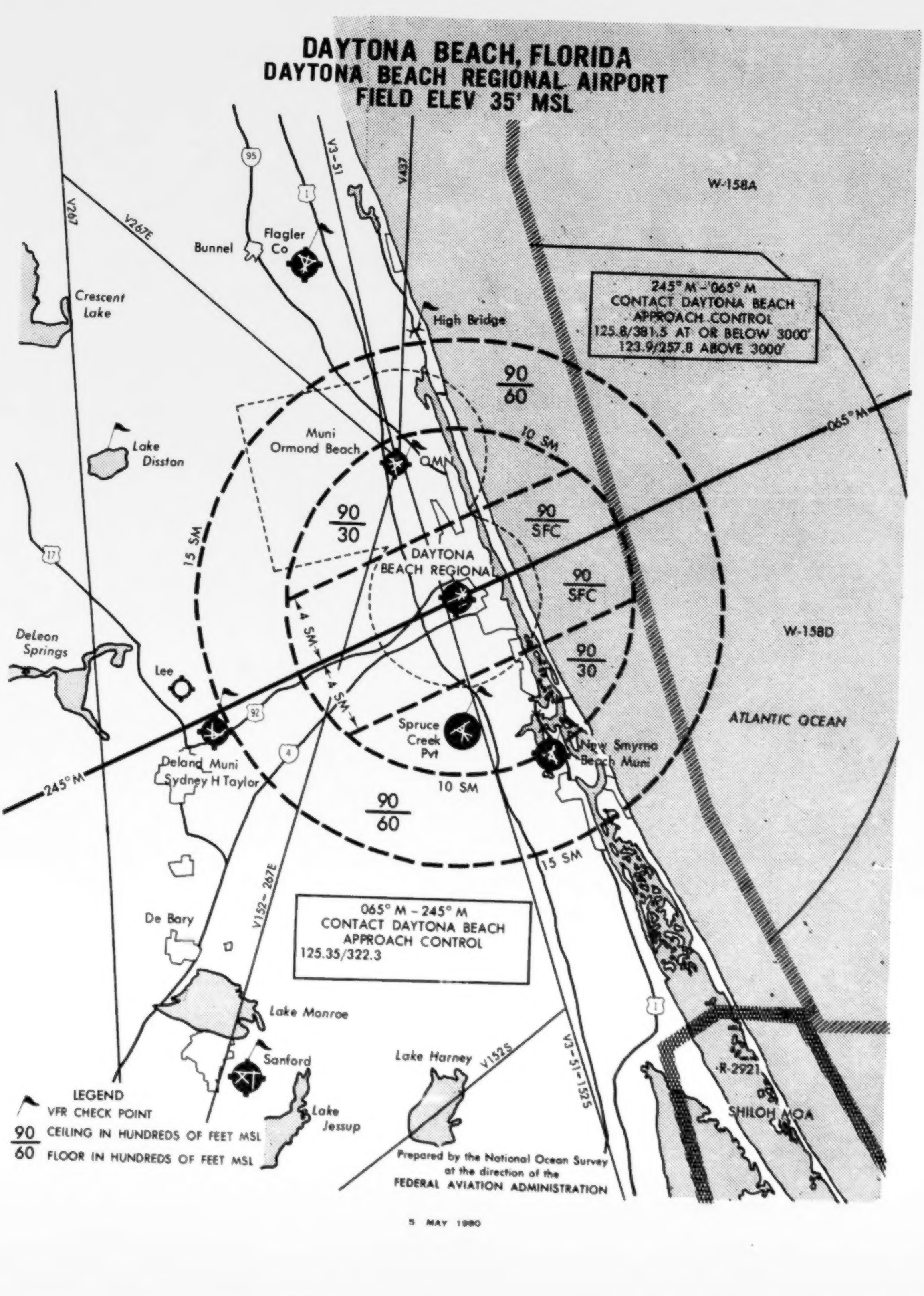
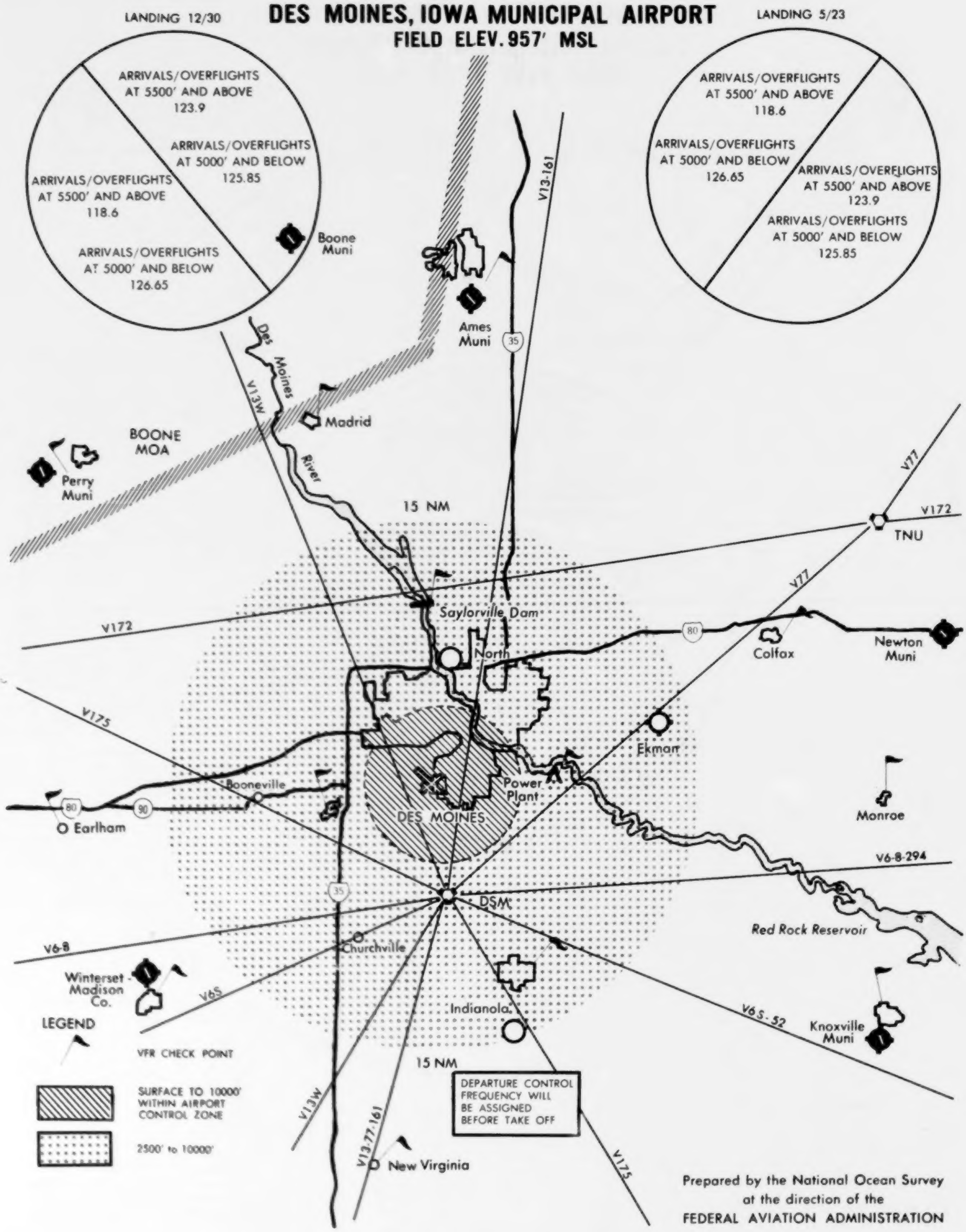
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)


DAYTONA BEACH, FLORIDA
DAYTONA BEACH REGIONAL AIRPORT
FIELD ELEV 35' MSL
245° M – 065° M
CONTACT DAYTONA BEACH
APPROACH CONTROL
125.8/381.5 AT OR BELOW 3000'
123.9/257.8 ABOVE 3000'
065° M – 245° M
CONTACT DAYTONA BEACH
APPROACH CONTROL
125.35/322.3
W-158A
W-158D
ATLANTIC OCEAN
R-2921
SHILOH MOA
V267
V267E
V3-51
V437
V152-267E
V152S
V3-51-152S
95
1
17
92
4
Bunnel
Flagler Co
Crescent Lake
High Bridge
Lake Disston
Muni Ormond Beach
OMN
DAYTONA BEACH REGIONAL
DeLeon Springs
Lee
Deland Muni Sydney H Taylor
Spruce Creek Pvt
New Smyrna Beach Muni
De Bary
Lake Monroe
Sanford
Lake Jessup
Lake Harney
065° M
245° M
15 SM
10 SM
4 SM
4 SM
10 SM
15 SM
90/60
90/30
90/SFC
90/SFC
90/30
90/60
LEGEND
VFR CHECK POINT
90 CEILING IN HUNDREDS OF FEET MSL
60 FLOOR IN HUNDREDS OF FEET MSL
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

5 MAY 1980

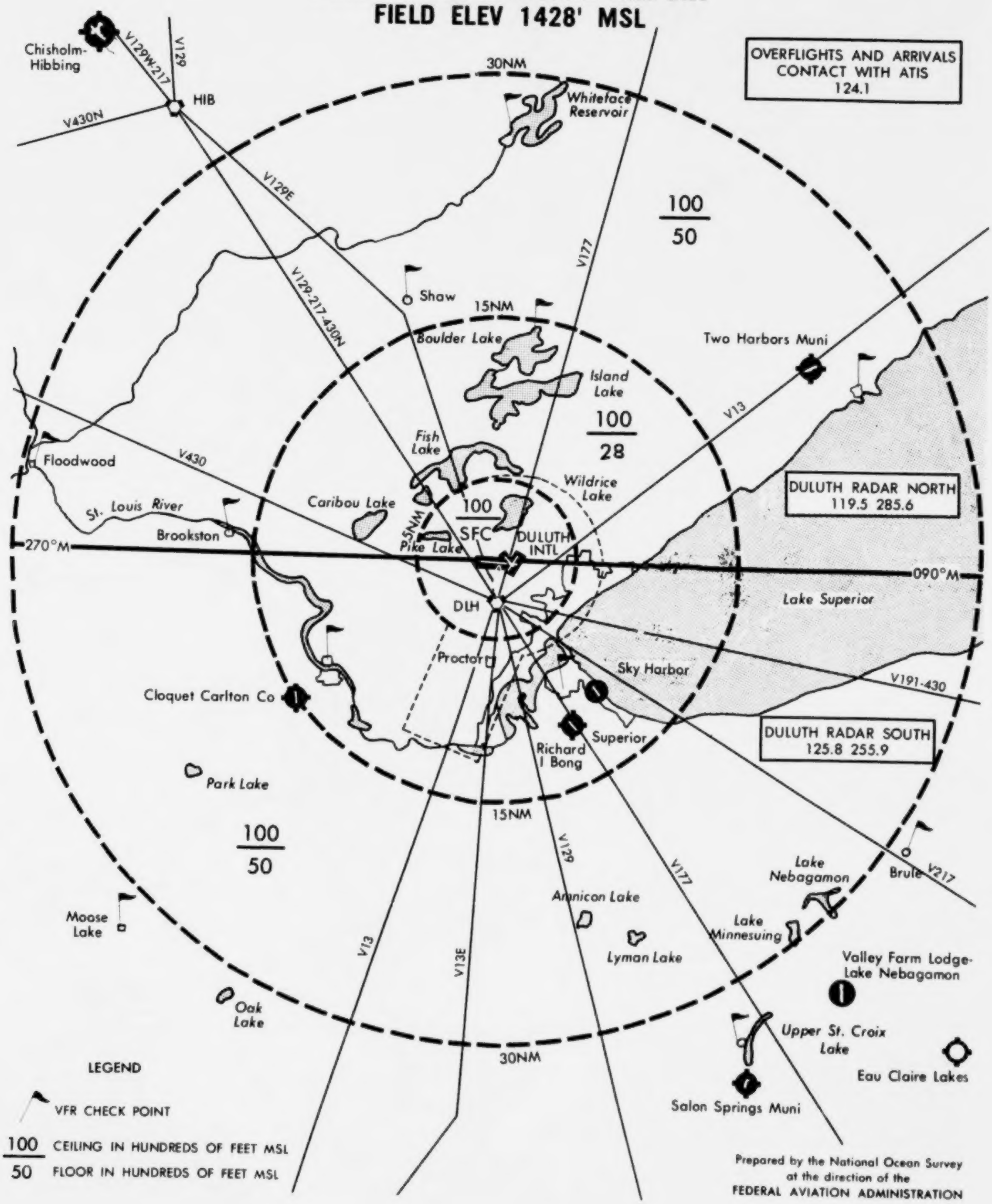
DES MOINES, IOWA MUNICIPAL AIRPORT
FIELD ELEV. 957′ MSL


LANDING 12/30
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 125.85
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 126.65
LANDING 5/23
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 118.6
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 126.65
ARRIVALS/OVERFLIGHTS AT 5500′ AND ABOVE 123.9
ARRIVALS/OVERFLIGHTS AT 5000′ AND BELOW 125.85
Boone Muni
V13-161
Ames Muni
35
Des Moines River
V13W
Madrid
BOONE MOA
Perry Muni
15 NM
V77
V172
TNU
Saylorville Dam
V172
80
Colfax
Newton Muni
North
V175
Ekman
Booneville
Power Plant
80
90
Earlham
DES MOINES
Monroe
V6-8-294
35
DSM
Red Rock Reservoir
V6-8
Churchville
Winterset - Madison Co.
V6S
Indianola
V6S-52
Knoxville Muni
15 NM
LEGEND
VFR CHECK POINT
SURFACE TO 10000′ WITHIN AIRPORT CONTROL ZONE
2500′ to 10000′
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKE OFF
V13W
V13-77-161
New Virginia
V175

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

DULUTH, MINNESOTA
DULUTH INTERNATIONAL AIRPORT
FIELD ELEV 1428' MSL


OVERFLIGHTS AND ARRIVALS CONTACT WITH ATIS 124.1
Chisholm-Hibbing
V129W-217
V129
HIB
V430N
30NM
Whiteface Reservoir
V129E
100
50
V177
V129-217-430N
Shaw
15NM
Boulder Lake
Island Lake
Two Harbors Muni
V13
100
28
Fish Lake
Floodwood
V430
Wildrice Lake
DULUTH RADAR NORTH 119.5 285.6
St. Louis River
Caribou Lake
100
SFC
5NM
Brookston
DULUTH INTL
Pike Lake
270°M
090°M
Lake Superior
DLH
Proctor
Sky Harbor
V191-430
Cloquet Carlton Co
Superior
DULUTH RADAR SOUTH 125.8 255.9
Richard I Bong
Park Lake
15NM
100
50
V129
V177
Brule
V217
Lake Nebagamon
Arnicon Lake
Moose Lake
Lake Minnesuing
Lyman Lake
V13
V13E
Valley Farm Lodge-Lake Nebagamon
Oak Lake
Upper St. Croix Lake
30NM
Eau Claire Lakes
LEGEND
VFR CHECK POINT
Salon Springs Muni
100 CEILING IN HUNDREDS OF FEET MSL
50 FLOOR IN HUNDREDS OF FEET MSL

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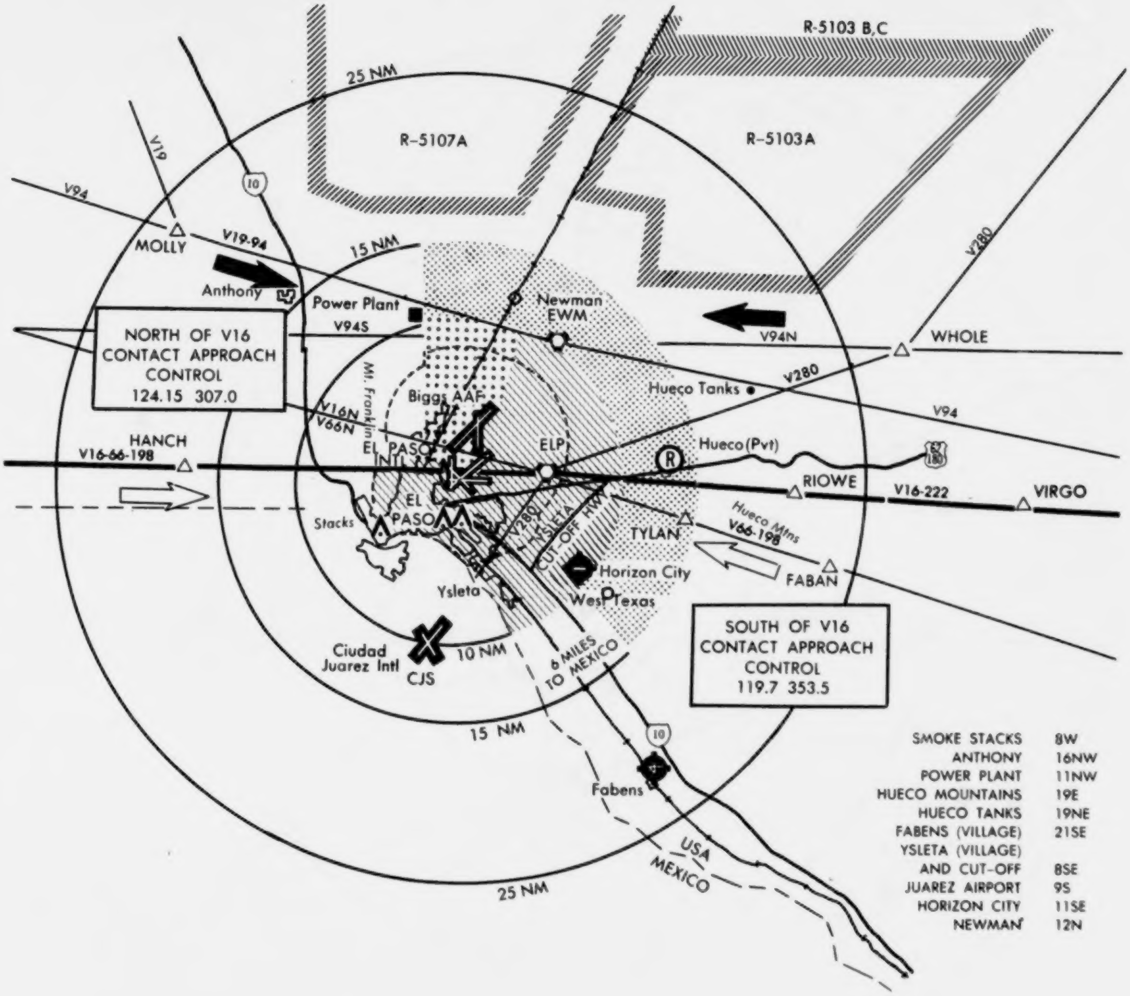
FEDERAL AVIATION ADMINISTRATION

EL PASO, TEXAS, EL PASO INTL AIRPORT
FIELD ELEV. 3956′ MSL


R-5103 B,C
R-5107A
R-5103A
25 NM
15 NM
10 NM
V19
V94
10
MOLLY
V19-94
Anthony
Power Plant
V94S
Newman
EWM
V94N
WHOLE
V280
NORTH OF V16
CONTACT APPROACH
CONTROL
124.15 307.0
Mt. Franklin
Biggs AAF
Hueco Tanks
V94
V16N
V66N
HANCH
V16-66-198
EL PASO
INTL
ELP
R
Hueco (Pvt)
62
180
RIOWE
V16-222
VIRGO
EL PASO
Stacks
V280
N-S ILETA
CUT-OFF HWY
TYLAN
Hueco Mtns
V66-198
FABAN
Horizon City
West Texas
Ysleta
Ciudad
Juarez Intl
CJS
6 MILES
TO MEXICO
SOUTH OF V16
CONTACT APPROACH
CONTROL
119.7 353.5
Fabens
USA
MEXICO

SMOKE STACKS	8W
ANTHONY	16NW
POWER PLANT	11NW
HUECO MOUNTAINS	19E
HUECO TANKS	19NE
FABENS (VILLAGE)	21SE
YSLETA (VILLAGE) AND CUT-OFF	8SE
JUAREZ AIRPORT	9S
HORIZON CITY	11SE
NEWMAN	12N

LEGEND

░ 6000′ TO 10,000′ MSL

▒ 6500′ TO 10,000′ MSL

▨ SURFACE TO 10,000′ MSL

⬅ SUGGESTED VFR ROUTES
RUNWAYS 22, 26, 17, IN USE

⇦ SUGGESTED VFR ROUTES
RUNWAYS 4, 8, 35, IN USE

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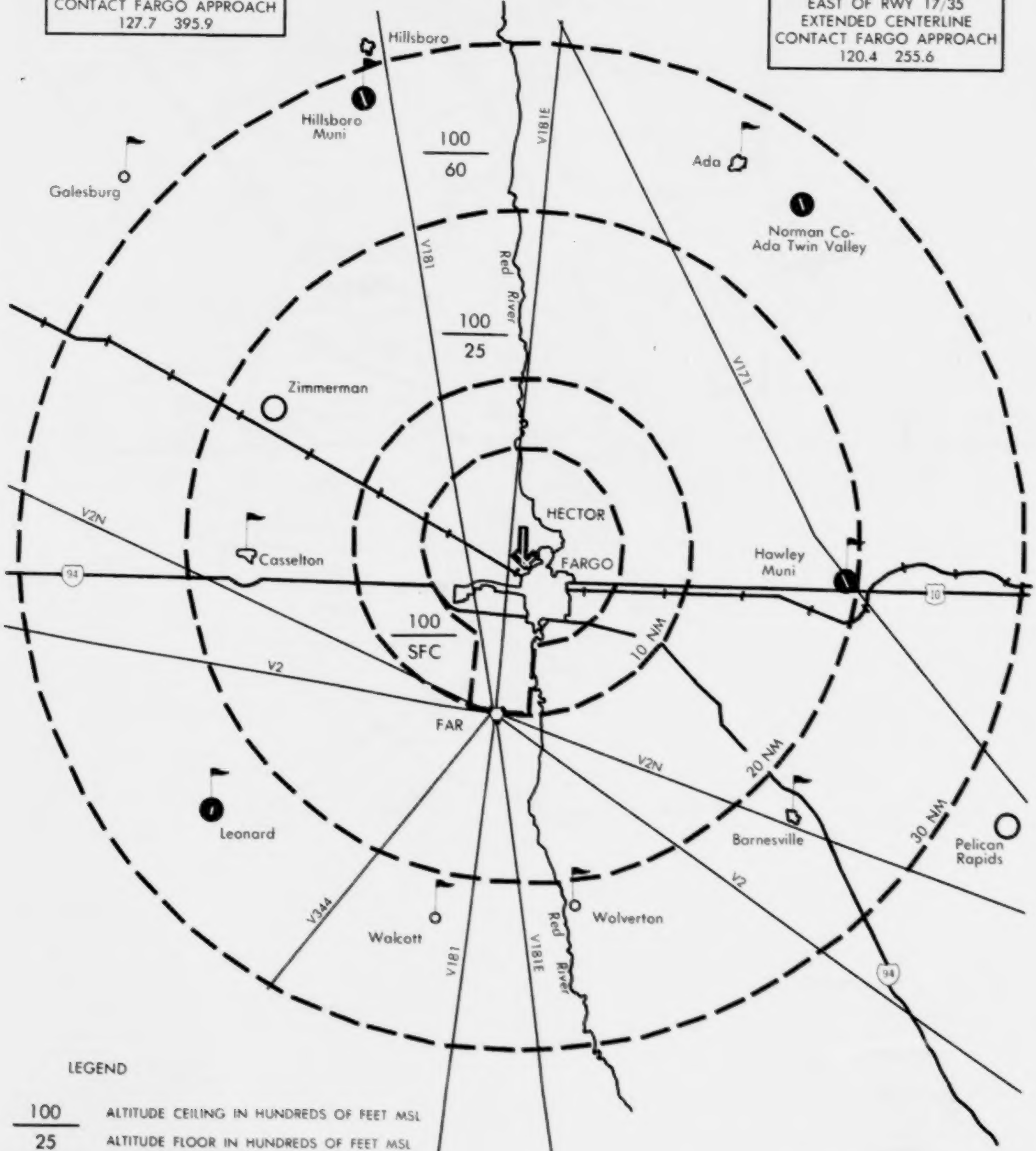
15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

FARGO, NORTH DAKOTA
HECTOR AIRPORT
FIELD ELEV 900' MSL

WEST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
127.7 395.9

EAST OF RWY 17/35
EXTENDED CENTERLINE
CONTACT FARGO APPROACH
120.4 255.6


Hillsboro
Hillsboro Muni
100
60
V181E
Ada
Galesburg
Norman Co-Ada Twin Valley
V181
Red River
100
25
V171
Zimmerman
HECTOR
FARGO
V2N
Casselton
94
Hawley Muni
10
100
SFC
10 NM
V2
FAR
V2N
20 NM
30 NM
Leonard
Barnesville
Pelican Rapids
V2
V344
Walcott
Wolverton
V181
V181E
Red River
94

LEGEND

100	ALTITUDE CEILING IN HUNDREDS OF FEET MSL
25	ALTITUDE FLOOR IN HUNDREDS OF FEET MSL
⚑	VFR CHECK POINTS

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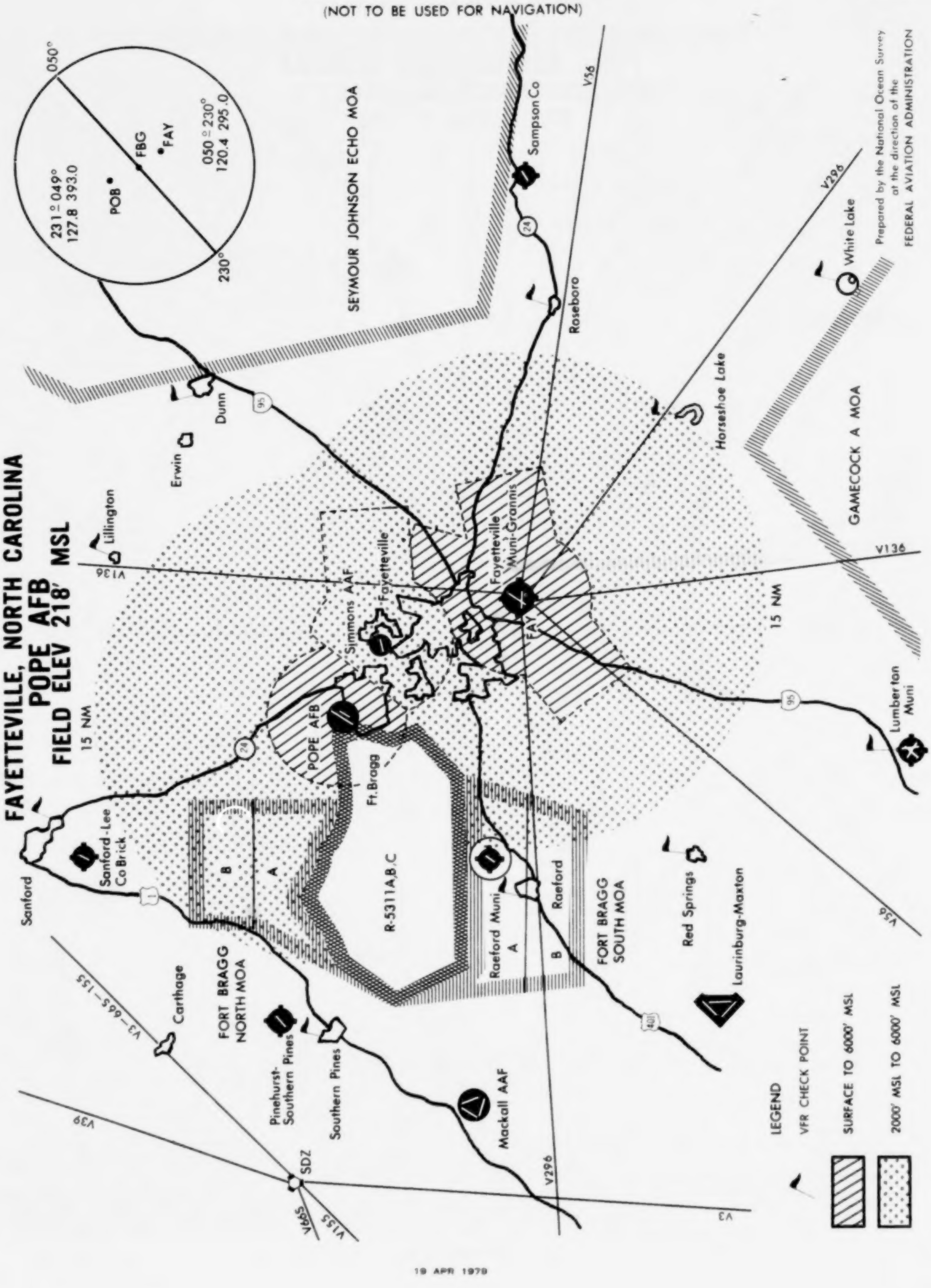

FAYETTEVILLE, NORTH CAROLINA
POPE AFB
FIELD ELEV 218' MSL

231 ≗ 049°
127.8 393.0
050 ≗ 230°
120.4 295.0
050°
230°
POB
FBG
FAY
SEYMOUR JOHNSON ECHO MOA
GAMECOCK A MOA
FORT BRAGG NORTH MOA
FORT BRAGG SOUTH MOA
R-5311A,B,C
Ft.Bragg
POPE AFB
Simmons AAF
Fayetteville
Fayetteville Muni-Grannis
FAY
15 NM
15 NM
Sanford
Sanford-Lee Co Brick
Lillington
Erwin
Dunn
Sampson Co
Roseboro
Horseshoe Lake
White Lake
Lumberton Muni
Red Springs
Laurinburg-Maxton
Raeford
Raeford Muni
Carthage
Pinehurst-Southern Pines
Southern Pines
Mackall AAF
SDZ
A
B
A
B
V136
V136
V56
V56
V296
V296
V3
V39
V155
V66S
V3-66S-155
24
24
95
95
1
401
LEGEND
VFR CHECK POINT
SURFACE TO 6000' MSL
2000' MSL TO 6000' MSL

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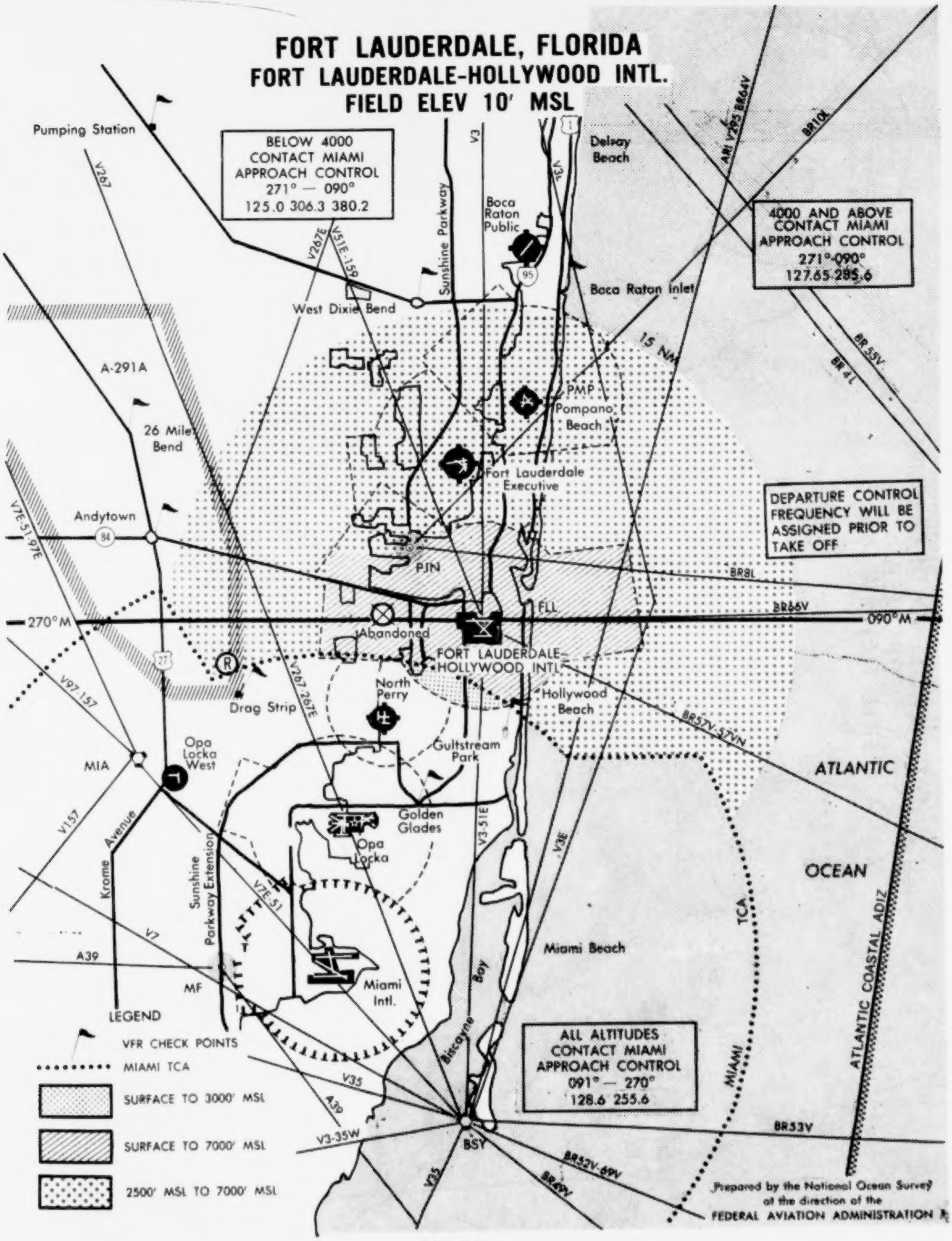
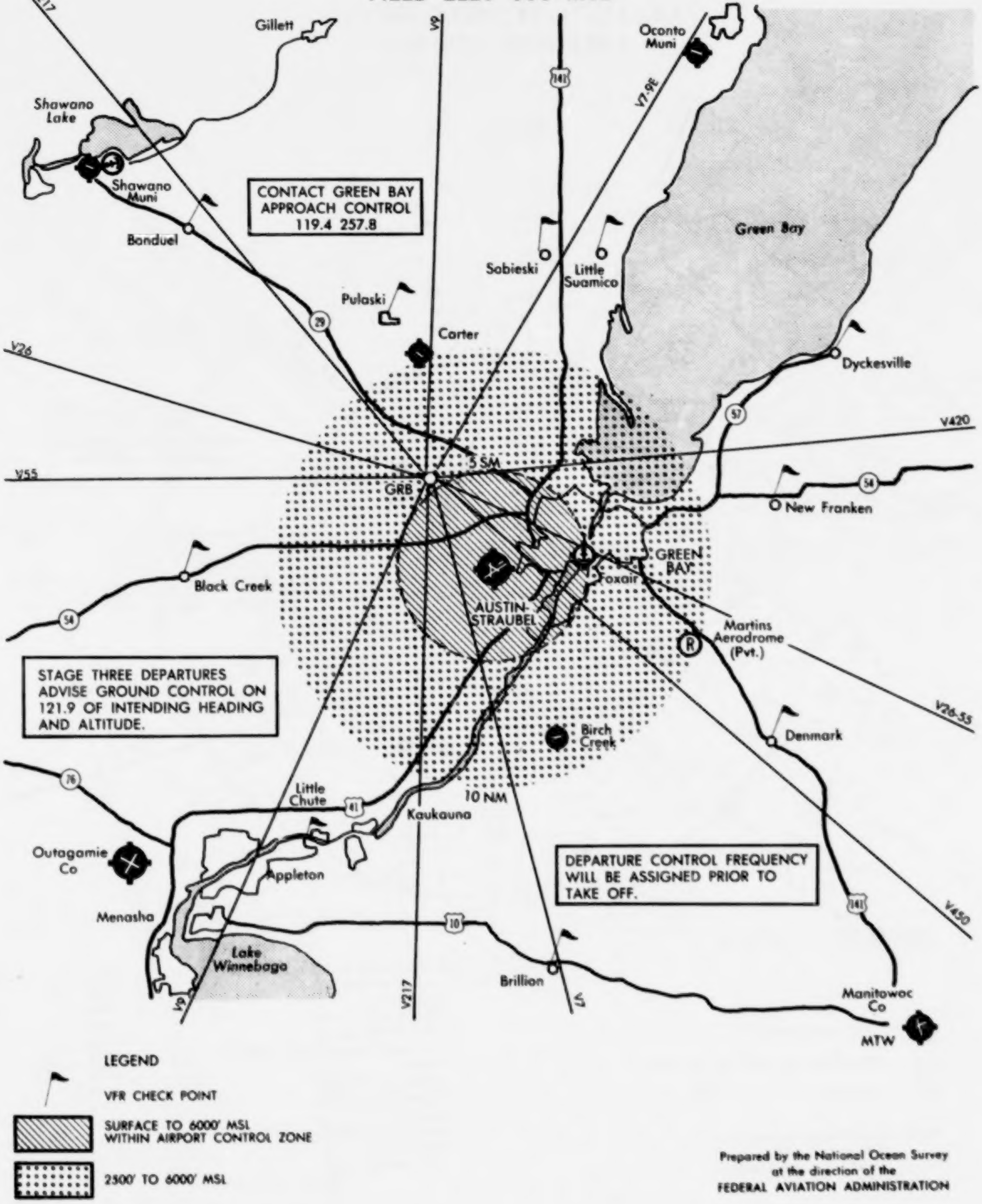
19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)


FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE-HOLLYWOOD INTL.
FIELD ELEV 10′ MSL
BELOW 4000 CONTACT MIAMI APPROACH CONTROL 271° — 090° 125.0 306.3 380.2
4000 AND ABOVE CONTACT MIAMI APPROACH CONTROL 271°-090° 127.65 285.6
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF
ALL ALTITUDES CONTACT MIAMI APPROACH CONTROL 091° — 270° 128.6 255.6
Pumping Station
V267
V267E
V51E-159
V3
Sunshine Parkway
Boca Raton Public
V3E
1
95
Delray Beach
ARI V295 BR64V
BR10L
Boca Raton Inlet
West Dixie Bend
15 NM
BR 55V
BR 4L
A-291A
PMP
Pompano Beach
26 Mile Bend
Fort Lauderdale Executive
Andytown
84
V7E-51-97E
PJN
BR8L
FLL
BR66V
270°M
090°M
Abandoned
FORT LAUDERDALE-HOLLYWOOD INTL
27
R
Drag Strip
V267-267E
North Perry
Hollywood Beach
BR57V-57VN
V97-157
Opa Locka West
Gulfstream Park
MIA
ATLANTIC
Golden Glades
V157
Krome Avenue
Sunshine Parkway Extension
V3-51E
V3E
Opa Locka
OCEAN
V7E-51
V7
A39
MF
Miami Beach
Miami Intl.
Bay
Biscayne
TCA
MIAMI
ATLANTIC COASTAL ADIZ
V35
A39
V3-35W
BSY
BR53V
V35
BR52V-69V
BR49V
LEGEND
VFR CHECK POINTS
MIAMI TCA
SURFACE TO 3000′ MSL
SURFACE TO 7000′ MSL
2500′ MSL TO 7000′ MSL
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

GREEN BAY, WISCONSIN AUSTIN-STRAUBEL ARPT.
FIELD ELEV 695' MSL


V217
Gillett
V9
141
Oconto Muni
V7-9E
Shawano Lake
Shawano Muni
Bonduel
Green Bay
Sobieski
Little Suamico
Pulaski
29
Carter
Dyckesville
V26
57
V420
5 SM
V55
GRB
54
New Franken
Black Creek
GREEN BAY
Foxair
AUSTIN-STRAUBEL
54
Martins Aerodrome (Pvt.)
R
V26-55
Birch Creek
Denmark
76
Little Chute
41
10 NM
Kaukauna
Outagamie Co
Appleton
141
Menasha
10
V450
Lake Winnebago
Brillion
V9
V217
V7
Manitowoc Co
MTW

CONTACT GREEN BAY APPROACH CONTROL 119.4 257.8

STAGE THREE DEPARTURES ADVISE GROUND CONTROL ON 121.9 OF INTENDING HEADING AND ALTITUDE.

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED PRIOR TO TAKE OFF.

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL WITHIN AIRPORT CONTROL ZONE

⠿ 2500' TO 6000' MSL

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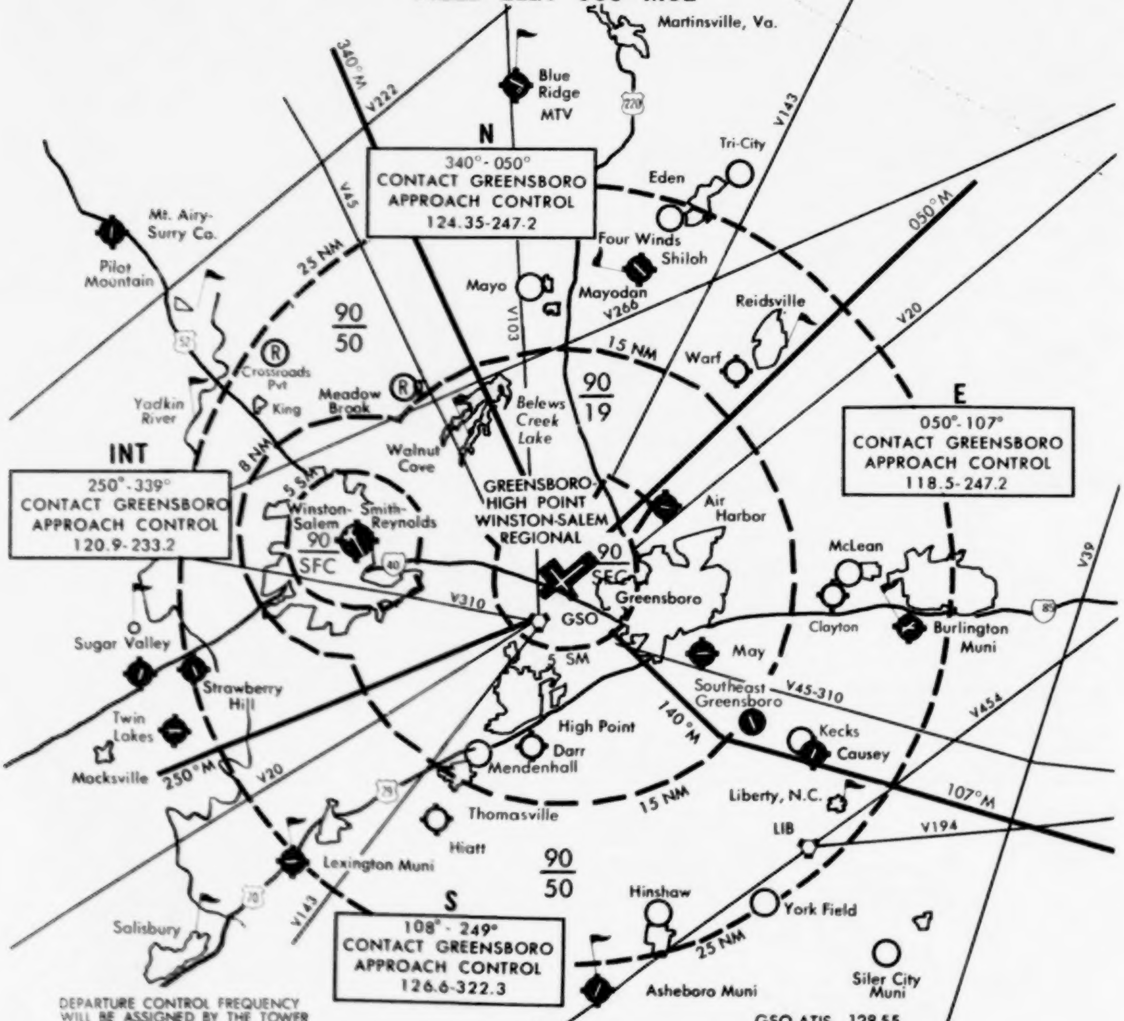
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

GREENSBORO-HIGH POINT-WINSTON SALEM REGIONAL FIELD ELEV. 926′ MSL AND SMITH REYNOLDS ARPTS FIELD ELEV 969′ MSL


Martinsville, Va.
220
Blue Ridge MTV
340°M
V222
N
340° - 050°
CONTACT GREENSBORO
APPROACH CONTROL
124.35-247.2
V143
Tri-City
Eden
Four Winds
Shiloh
050°M
V45
Mt. Airy-Surry Co.
Pilot Mountain
25 NM
Mayo
Mayodan
V266
V103
Reidsville
V20
52
90
50
Crossroads Pvt
R
15 NM
Warf
Meadow Brook
R
Belews Creek Lake
90
19
E
Yadkin River
King
Walnut Cove
050°- 107°
CONTACT GREENSBORO
APPROACH CONTROL
118.5-247.2
INT
8 NM
5 SM
GREENSBORO-HIGH POINT WINSTON-SALEM REGIONAL
Air Harbor
250°-339°
CONTACT GREENSBORO
APPROACH CONTROL
120.9-233.2
Winston-Salem
Smith-Reynolds
90
SFC
40
90
SFC
Greensboro
McLean
V39
V310
GSO
Clayton
85
Burlington Muni
Sugar Valley
5 SM
May
Strawberry Hill
Southeast Greensboro
V45-310
Twin Lakes
140°M
High Point
Kecks
Causey
V454
Darr
Mendenhall
Macksville
250°M
V20
29
15 NM
Liberty, N.C.
107°M
Thomasville
LIB
V194
Hiatt
Lexington Muni
90
50
70
V143
S
Hinshaw
York Field
108° - 249°
CONTACT GREENSBORO
APPROACH CONTROL
126.6-322.3
Salisbury
25 NM
Siler City Muni
Asheboro Muni
V454

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BY THE TOWER

GSO ATIS 128.55

MARTINSVILLE BLUE RIDGE AIRPORT	N	35NM
SHILOH AIRPORT	NE	25NM
REIDSVILLE	NE	20NM
BELEWS CREEK LAKE	N	14NM
BURLINGTON AIRPORT	E	25NM
SOUTHEAST GREENSBORO AIRPORT	SE	15NM
LIBERTY	SE	23NM
ASHEBORO AIRPORT	S	26NM
LEXINGTON AIRPORT	SW	25NM
SALISBURY	SW	30NM
TWIN LAKES AIRPORT	SW	27NM
YADKIN RIVER	W	25NM
PILOT MOUNTAIN	NW	32NM

LEGEND

⚑	VFR CHECK POINT
90	CEILING IN HUNDREDS OF FEET MSL
50	FLOOR IN HUNDREDS OF FEET MSL

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at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

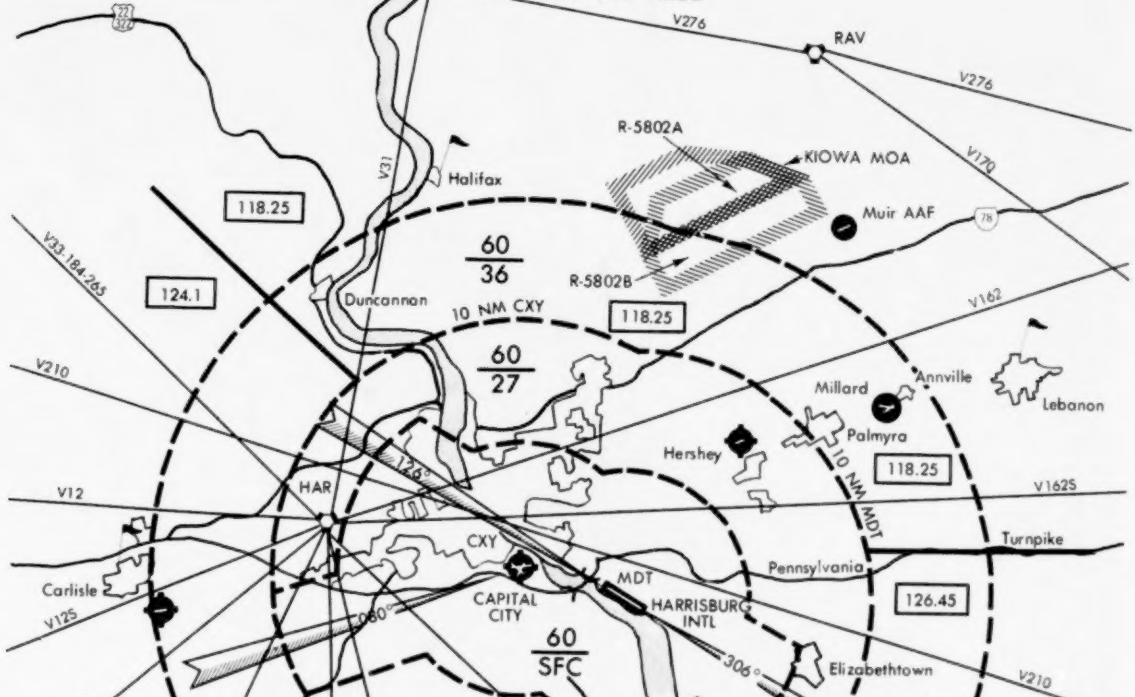
HARRISBURG, PENNSYLVANIA

CAPITAL CITY

FIELD ELEV 347' MSL

HARRISBURG INTL

FIELD ELEV 310' MSL


22
322
V276
RAV
V276
V170
R-5802A
KIOWA MOA
Halifax
V31
118.25
Muir AAF
78
V33-184-265
124.1
60
36
R-5802B
Duncannon
10 NM CXY
118.25
V162
V210
60
27
Annville
Millard
Lebanon
Palmyra
Hershey
10 NM MDT
118.25
126°
HAR
V12
V162S
Turnpike
CXY
Pennsylvania
Carlisle
MDT
CAPITAL CITY
HARRISBURG INTL
126.45
V125
080°
60
SFC
306°
Elizabethtown
V210
V377
Dillsburg
Mt. Joy
60
27
124.1
Susquehanna River
Elizabethtown Marietta
Columbia
124.1
126.45
V184
15
THV
V474
SPRRY
DELRO
V184-474
York
V162
V39-143
83
V1435
V93
Doersom
Gettysburg
Hanover
V31-33
V265
LEGEND
VFR CHECK POINTS
60 CEILING IN HUNDREDS OF FEET MSL
36 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

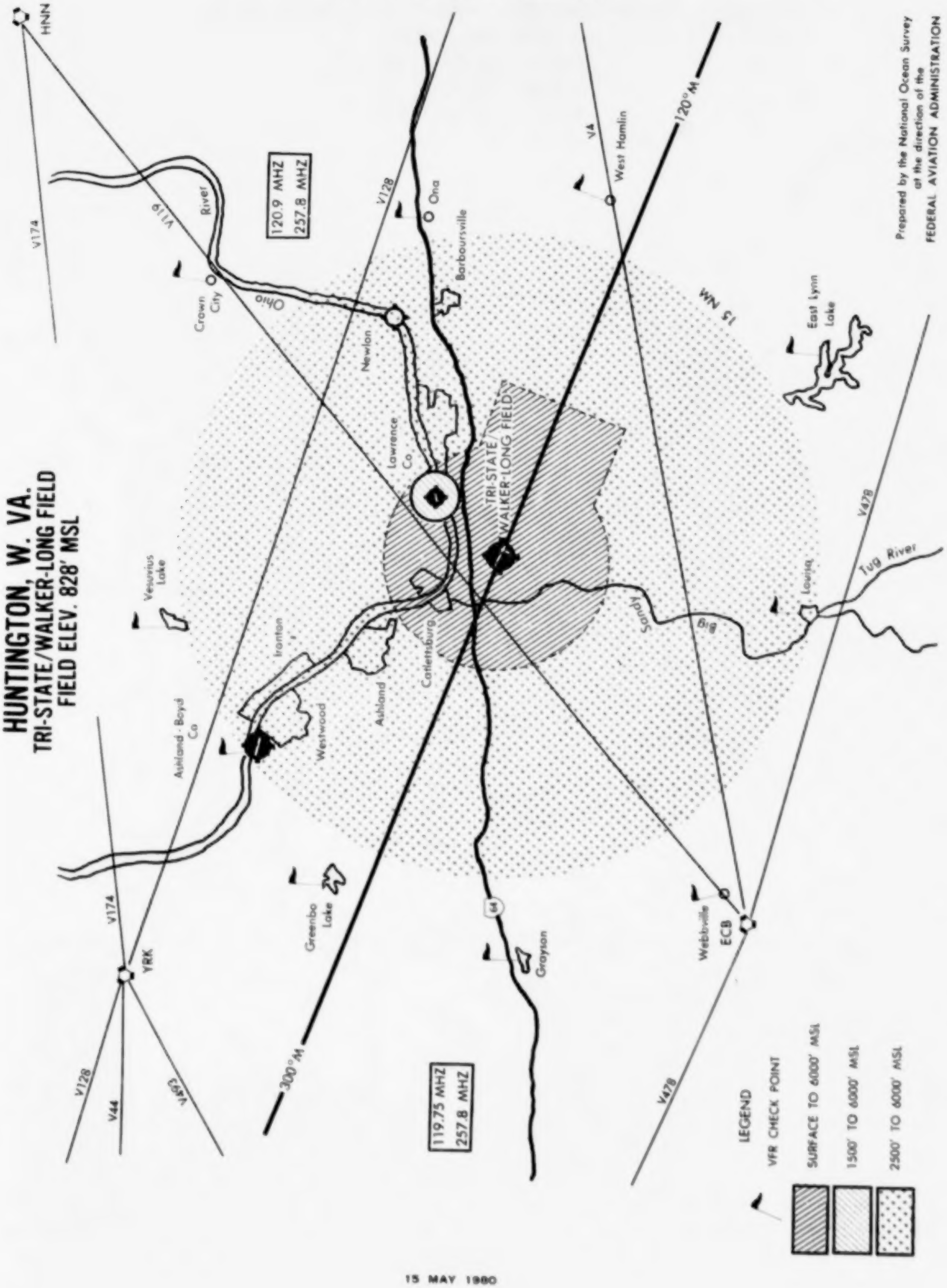
20 MAR 1980

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

HUNTINGTON, W. VA.

TRI-STATE/WALKER-LONG FIELD
FIELD ELEV. 828' MSL


HNN
V174
V119
River
Ohio
Crown City
120.9 MHZ
257.8 MHZ
V128
Ona
Barboursville
Newlon
Lawrence Co.
V4
West Hamlin
120°M
15 NM
East Lynn Lake
TRI-STATE/WALKER-LONG FIELD
Vesuvius Lake
Ironton
Catlettsburg
Ashland
Westwood
Ashland - Boyd Co
Big Sandy
Louisa
Tug River
V478
Greenbo Lake
64
Grayson
Webbville
ECB
YRK
V174
V128
V44
V493
300°M
119.75 MHZ
257.8 MHZ
V478

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 6000' MSL
- ▧ 1500' TO 6000' MSL
- ░ 2500' TO 6000' MSL

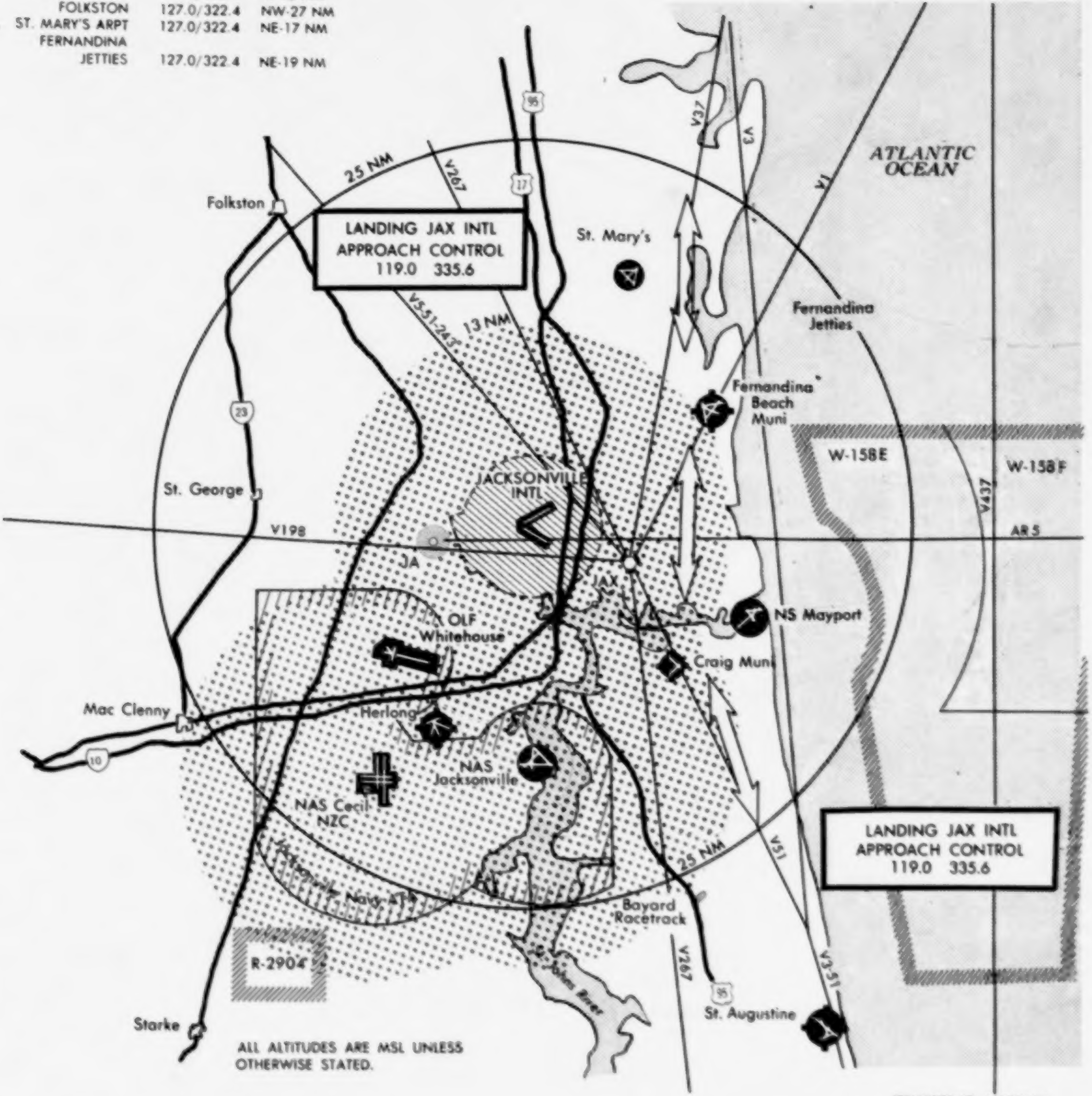
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE, FLA., JACKSONVILLE INTL. AIRPORT
FIELD ELEV. 30′ MSL

TRANSITING AIRCRAFT

ST. GEORGE	127.0/322.4	W-18 NM
FOLKSTON	127.0/322.4	NW-27 NM
ST. MARY'S ARPT	127.0/322.4	NE-17 NM
FERNANDINA JETTIES	127.0/322.4	NE-19 NM


ATLANTIC OCEAN
25 NM
13 NM
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
Folkston
St. Mary's
Fernandina Jetties
Fernandina Beach Muni
St. George
JACKSONVILLE INTL
JA
JAX
V198
V267
V5-51-243
V37
V3
V1
V437
V51
V3-51
95
17
23
10
W-158E
W-158F
AR 5
OLF Whitehouse
NS Mayport
Craig Muni
Mac Clenny
Herlong
NAS Jacksonville
NAS Cecil-NZC
Jacksonville Navy
25 NM
LANDING JAX INTL
APPROACH CONTROL
119.0 335.6
Bayard Racetrack
R-2904
St. Augustine
St. Johns River
Starke

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

LEGEND

⟺	SUGGESTED N/S VFR ROUTE CAUTION MAYPORT AND CRAIG TRAFFIC AREA
▨	SFC TO 11,000′ WITHIN AIRPORT CONTROL ZONE
░	2,000′ TO 11,000′

TRANSITING AIRCRAFT

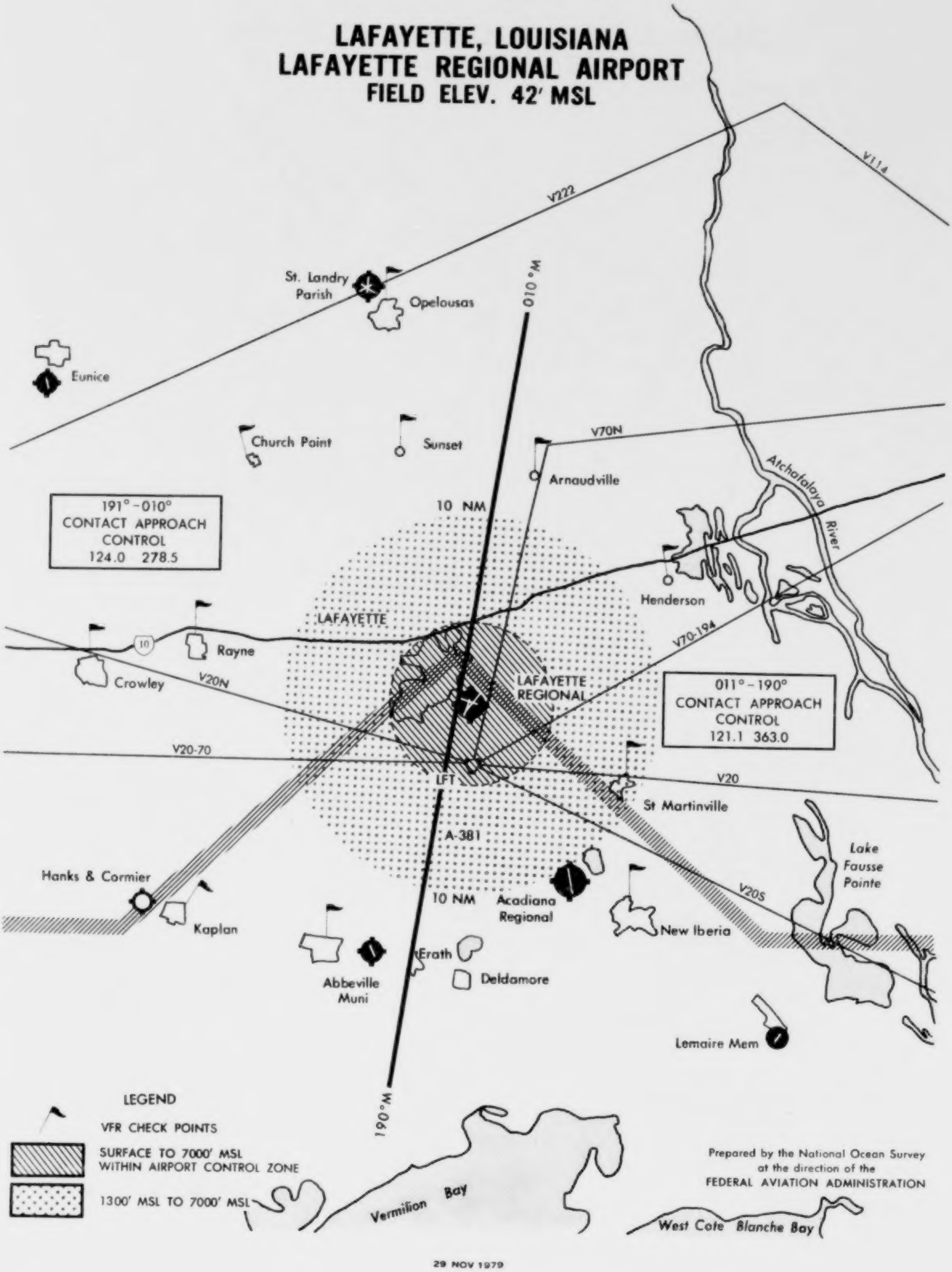
BAYARD RACETRACK	118.0/351.8	SE – 25 NM
NORTHBOUND 70 OR BELOW	124.4/372.1	SE – 25 NM
STARKE	127.0/319.9	SW – 40 NM
MAC CLENNY	127.0/319.9	SW – 40 NM

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LAFAYETTE, LOUISIANA
LAFAYETTE REGIONAL AIRPORT
FIELD ELEV. 42′ MSL


V222
V114
St. Landry Parish
Opelousas
010° M
Eunice
Church Point
Sunset
V70N
Arnaudville
Atchafalaya River
10 NM
191° - 010°
CONTACT APPROACH
CONTROL
124.0 278.5
Henderson
LAFAYETTE
10
Rayne
Crowley
V20N
V70-194
LAFAYETTE
REGIONAL
011° - 190°
CONTACT APPROACH
CONTROL
121.1 363.0
V20-70
LFT
V20
St Martinville
A-381
Lake
Fausse
Pointe
Hanks & Cormier
Kaplan
10 NM
Acadiana
Regional
V20S
New Iberia
Abbeville
Muni
Erath
Deldamore
Lemaire Mem
190° M
LEGEND
VFR CHECK POINTS
SURFACE TO 7000′ MSL
WITHIN AIRPORT CONTROL ZONE
1300′ MSL TO 7000′ MSL
Vermilion Bay
West Cote Blanche Bay

Prepared by the National Ocean Survey
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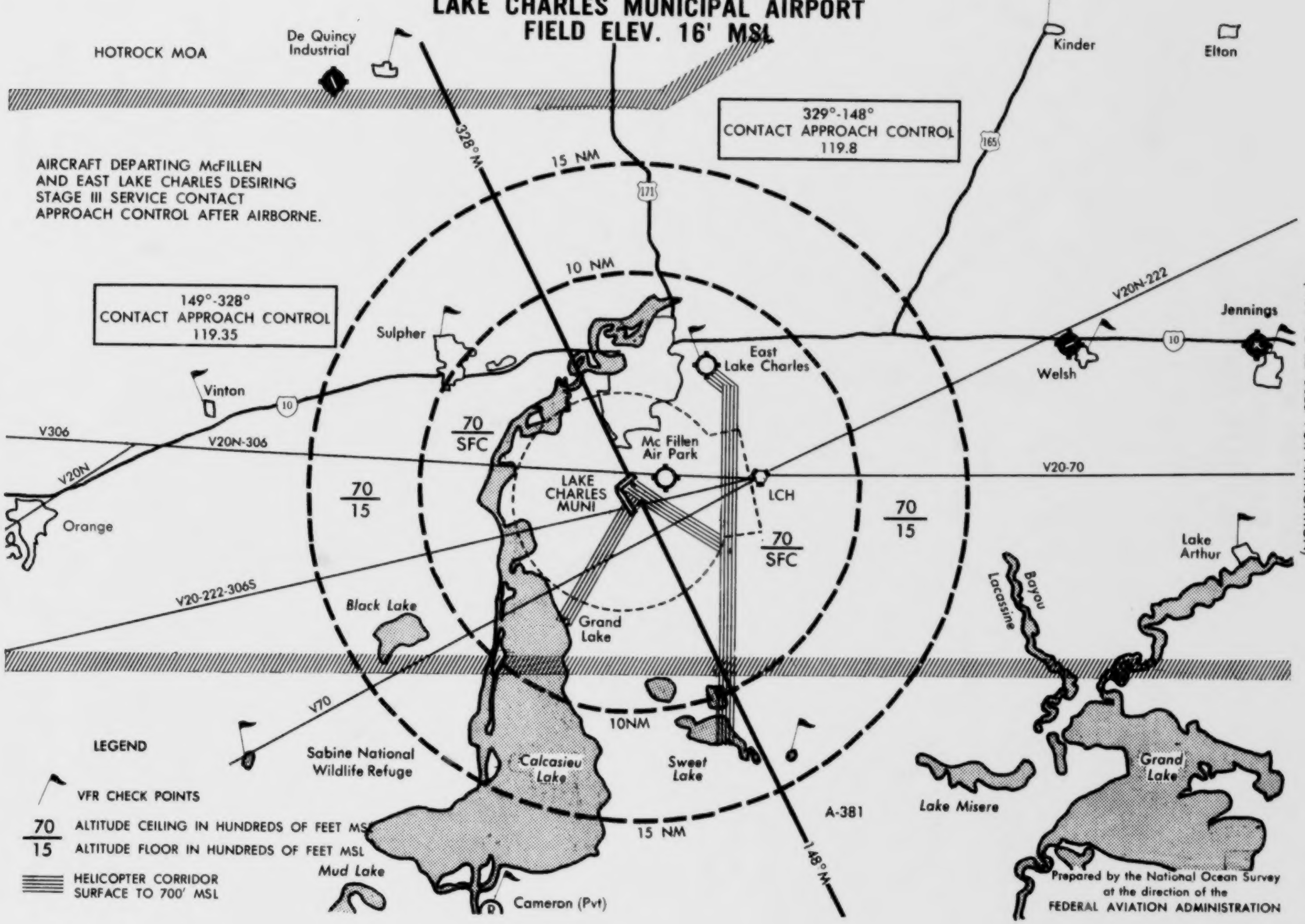
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

LAKE CHARLES, LOUISIANA
LAKE CHARLES MUNICIPAL AIRPORT
FIELD ELEV. 16' MSL



HOTROCK MOA
De Quincy Industrial
Kinder
Elton
165
171
15 NM
10 NM
328°M
Sulpher
Vinton
10
V306
V20N-306
V20N
Orange
70
SFC
70
15
East Lake Charles
Mc Fillen Air Park
LAKE CHARLES MUNI
LCH
V20-70
V20N-222
Welsh
Jennings
70
SFC
70
15
V20-222-306S
Black Lake
Grand Lake
Lake Arthur
Bayou Lacassine
V70
10NM
Sabine National Wildlife Refuge
Calcasieu Lake
Sweet Lake
Grand Lake
Lake Misere
A-381
15 NM
148°M
Mud Lake
Cameron (Pvt)

AIRCRAFT DEPARTING McFILLEN AND EAST LAKE CHARLES DESIRING STAGE III SERVICE CONTACT APPROACH CONTROL AFTER AIRBORNE.

329°-148°
CONTACT APPROACH CONTROL
119.8

149°-328°
CONTACT APPROACH CONTROL
119.35

LEGEND

VFR CHECK POINTS

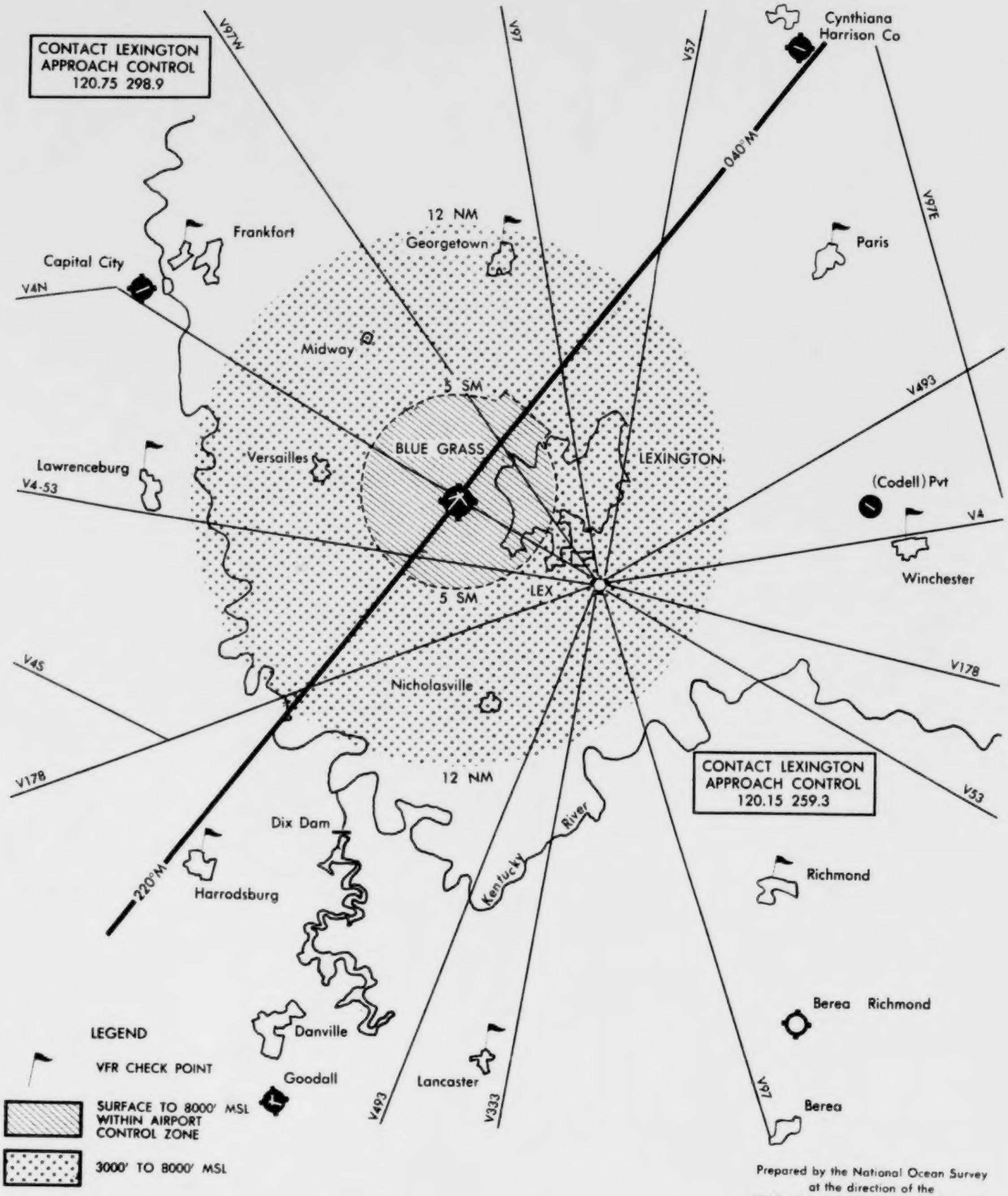
$\frac{70}{15}$ ALTITUDE CEILING IN HUNDREDS OF FEET MSL
ALTITUDE FLOOR IN HUNDREDS OF FEET MSL

▤ HELICOPTER CORRIDOR SURFACE TO 700' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LEXINGTON, KENTUCKY
BLUE GRASS FIELD
FIELD ELEV. 979' MSL

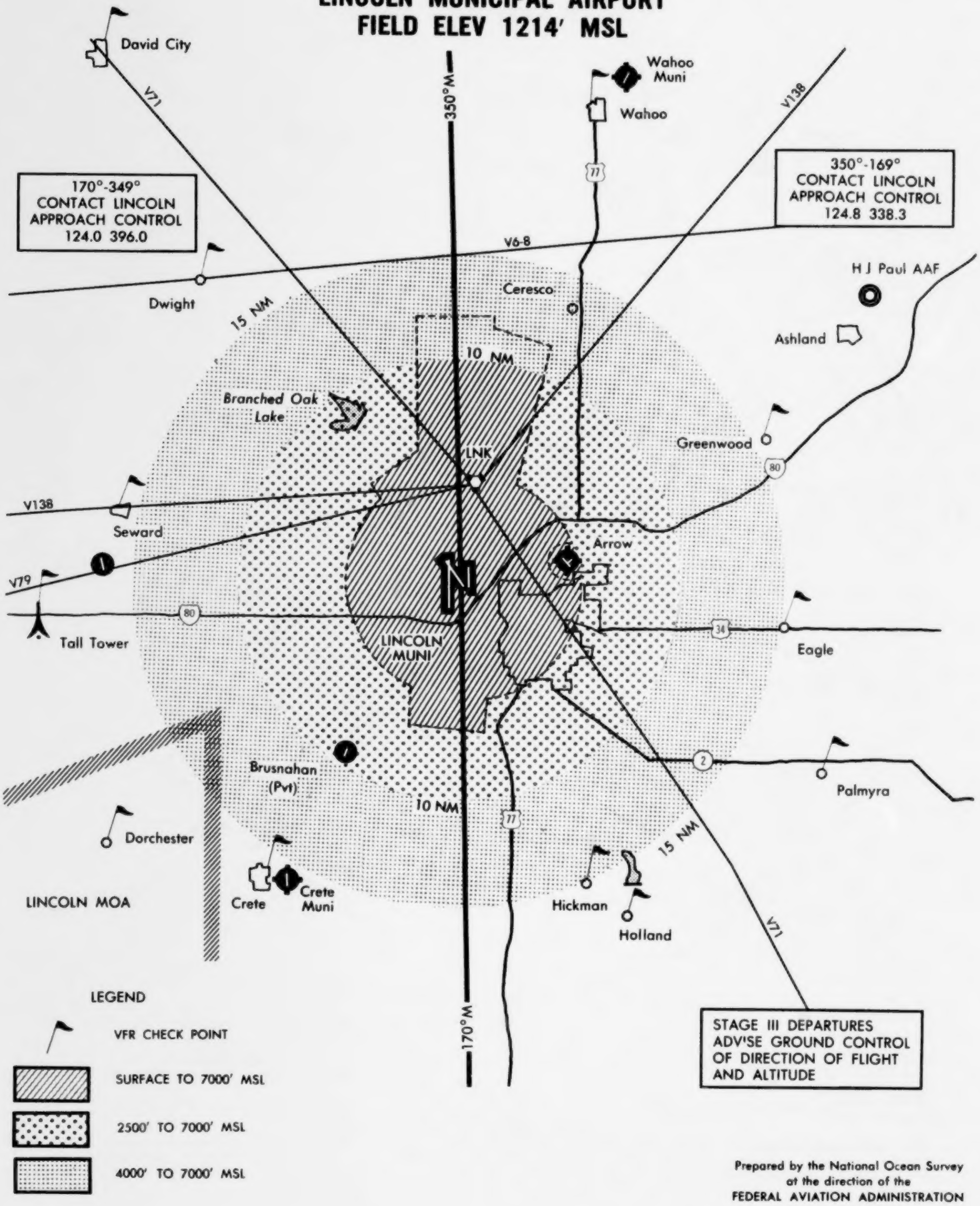

CONTACT LEXINGTON APPROACH CONTROL 120.75 298.9
V97W
V67
V57
Cynthiana Harrison Co
040°M
V97E
12 NM
Georgetown
Frankfort
Capital City
V4N
Paris
Midway
5 SM
V493
Lawrenceburg
Versailles
BLUE GRASS
LEXINGTON
(Codell) Pvt
V4-53
V4
Winchester
5 SM
LEX
V45
V178
Nicholasville
V178
12 NM
CONTACT LEXINGTON APPROACH CONTROL 120.15 259.3
V53
Dix Dam
Kentucky River
220°M
Harrodsburg
Richmond
Berea Richmond
Danville
Goodall
Lancaster
V493
V333
V67
Berea
LEGEND
VFR CHECK POINT
SURFACE TO 8000' MSL WITHIN AIRPORT CONTROL ZONE
3000' TO 8000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LINCOLN, NEBRASKA
LINCOLN MUNICIPAL AIRPORT
FIELD ELEV 1214′ MSL

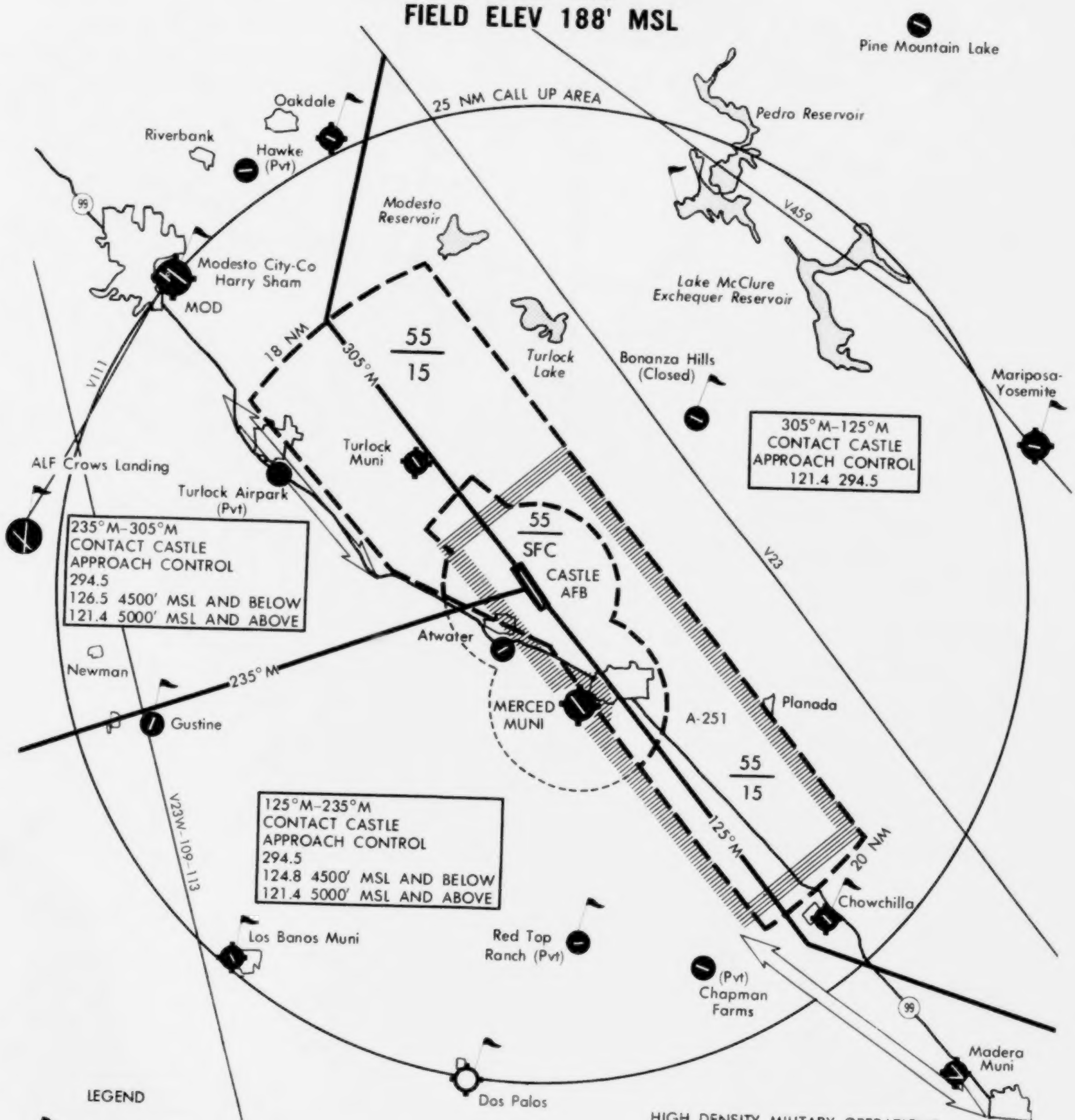

David City
V71
350°M
Wahoo Muni
Wahoo
V138
77
170°-349°
CONTACT LINCOLN
APPROACH CONTROL
124.0 396.0
350°-169°
CONTACT LINCOLN
APPROACH CONTROL
124.8 338.3
V6-8
Dwight
Ceresco
H J Paul AAF
15 NM
Ashland
10 NM
Branched Oak Lake
Greenwood
LNK
80
V138
Seward
Arrow
V79
N
80
34
Eagle
Tall Tower
LINCOLN MUNI
2
Brusnahan (Pvt)
Palmyra
10 NM
77
15 NM
Dorchester
Crete
Crete Muni
Hickman
Holland
LINCOLN MOA
V71
170°M
STAGE III DEPARTURES
ADV'SE GROUND CONTROL
OF DIRECTION OF FLIGHT
AND ALTITUDE
LEGEND
VFR CHECK POINT
SURFACE TO 7000′ MSL
2500′ TO 7000′ MSL
4000′ TO 7000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MERCED, CALIFORNIA
CASTLE AFB
FIELD ELEV 188' MSL


Pine Mountain Lake
Pedro Reservoir
25 NM CALL UP AREA
Oakdale
Riverbank
Hawke (Pvt)
99
Modesto Reservoir
V459
Modesto City-Co Harry Sham
MOD
Lake McClure Exchequer Reservoir
55
15
18 NM
305° M
Turlock Lake
Bonanza Hills (Closed)
Mariposa-Yosemite
V111
305°M–125°M
CONTACT CASTLE
APPROACH CONTROL
121.4 294.5
Turlock Muni
ALF Crows Landing
Turlock Airpark (Pvt)
55
SFC
CASTLE AFB
235°M–305°M
CONTACT CASTLE
APPROACH CONTROL
294.5
126.5 4500′ MSL AND BELOW
121.4 5000′ MSL AND ABOVE
V23
Atwater
Newman
235° M
Gustine
MERCED MUNI
A-251
Planada
55
15
V23W-109-113
125°M–235°M
CONTACT CASTLE
APPROACH CONTROL
294.5
124.8 4500′ MSL AND BELOW
121.4 5000′ MSL AND ABOVE
125° M
20 NM
Chowchilla
Los Banos Muni
Red Top Ranch (Pvt)
(Pvt) Chapman Farms
99
Madera Muni
Dos Palos

LEGEND

VFR CHECK POINT

⟺ VFR PREFERENTIAL ROUTE

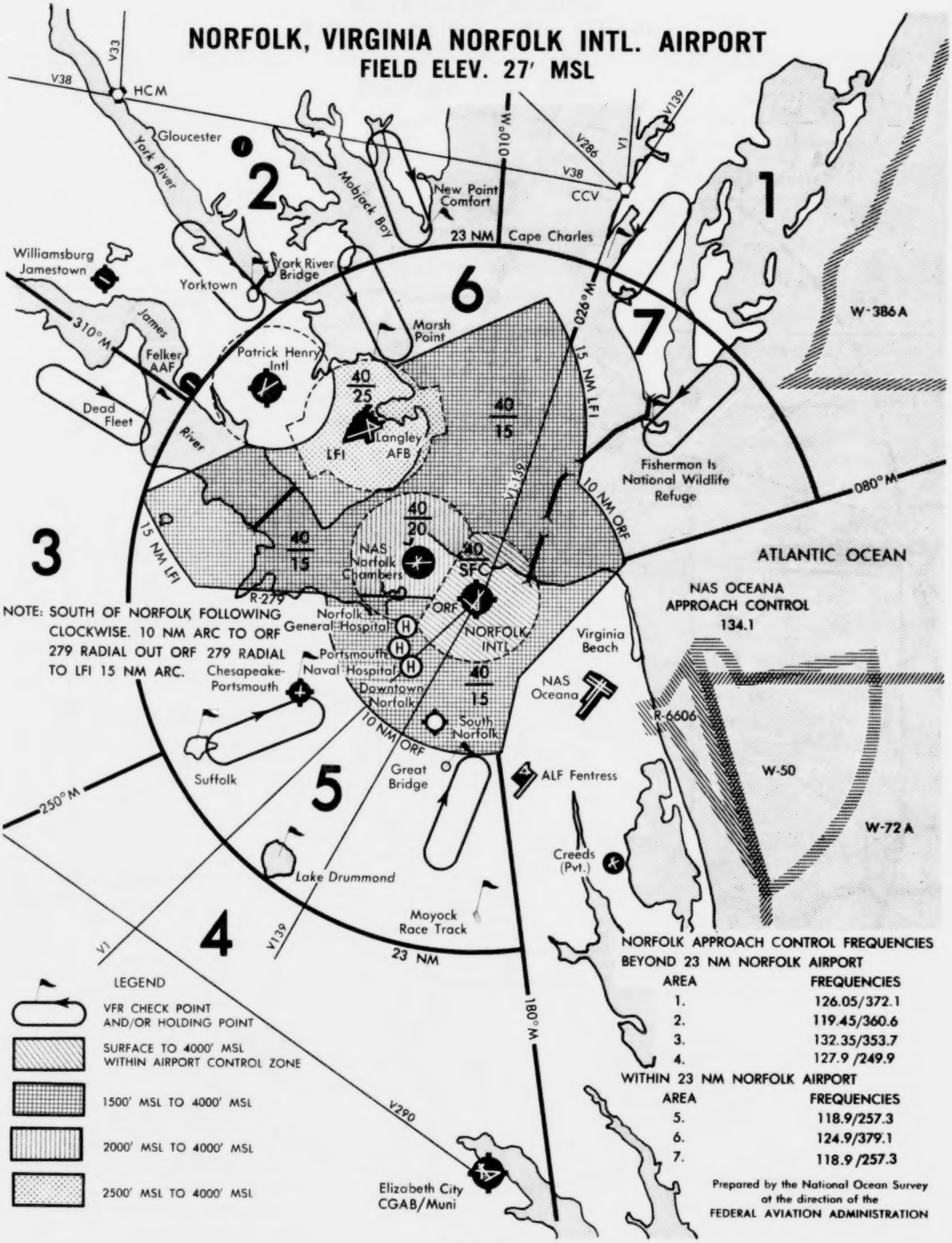
55 CEILING IN HUNDREDS OF FEET MSL
15 FLOOR IN HUNDREDS OF FEET MSL

HIGH DENSITY MILITARY OPERATIONS
WITHIN TRSA AIRSPACE
RADAR SERVICE AVAILABLE
CASTLE APPROACH CONTROL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

7 APR 1980

NORFOLK, VIRGINIA NORFOLK INTL. AIRPORT
FIELD ELEV. 27′ MSL


V33
V38
HCM
Gloucester
York River
Mobjack Bay
New Point Comfort
010° M
V286
V139
V1
V38
CCV
23 NM
Cape Charles
1
2
6
7
3
4
5
Williamsburg Jamestown
York River Bridge
Yorktown
Marsh Point
026° M
15 NM LFI
W-386A
310° M
James
Felker AAF
Patrick Henry Intl
Dead Fleet
River
40/25
Langley AFB
LFI
40/15
Fisherman Is National Wildlife Refuge
080° M
V1-139
10 NM ORF
40/20
40/15
NAS Norfolk Chambers
40/SFC
15 NM LFI
ATLANTIC OCEAN
NAS OCEANA APPROACH CONTROL 134.1
R-279
Norfolk General Hospital
ORF
NORFOLK INTL
Virginia Beach
Portsmouth Naval Hospital
Chesapeake-Portsmouth
Downtown Norfolk
40/15
NAS Oceana
R-6606
10 NM ORF
South Norfolk
Suffolk
Great Bridge
ALF Fentress
W-50
250° M
W-72A
Creeds (Pvt.)
Lake Drummond
Moyock Race Track
V1
V139
23 NM
180° M
V290
Elizabeth City CGAB/Muni
LEGEND
VFR CHECK POINT AND/OR HOLDING POINT
SURFACE TO 4000′ MSL WITHIN AIRPORT CONTROL ZONE
1500′ MSL TO 4000′ MSL
2000′ MSL TO 4000′ MSL
2500′ MSL TO 4000′ MSL

NOTE: SOUTH OF NORFOLK FOLLOWING CLOCKWISE. 10 NM ARC TO ORF 279 RADIAL OUT ORF 279 RADIAL TO LFI 15 NM ARC.

NORFOLK APPROACH CONTROL FREQUENCIES BEYOND 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
1.	126.05/372.1
2.	119.45/360.6
3.	132.35/353.7
4.	127.9 /249.9

WITHIN 23 NM NORFOLK AIRPORT

AREA	FREQUENCIES
5.	118.9/257.3
6.	124.9/379.1
7.	118.9 /257.3

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FEDERAL AVIATION ADMINISTRATION

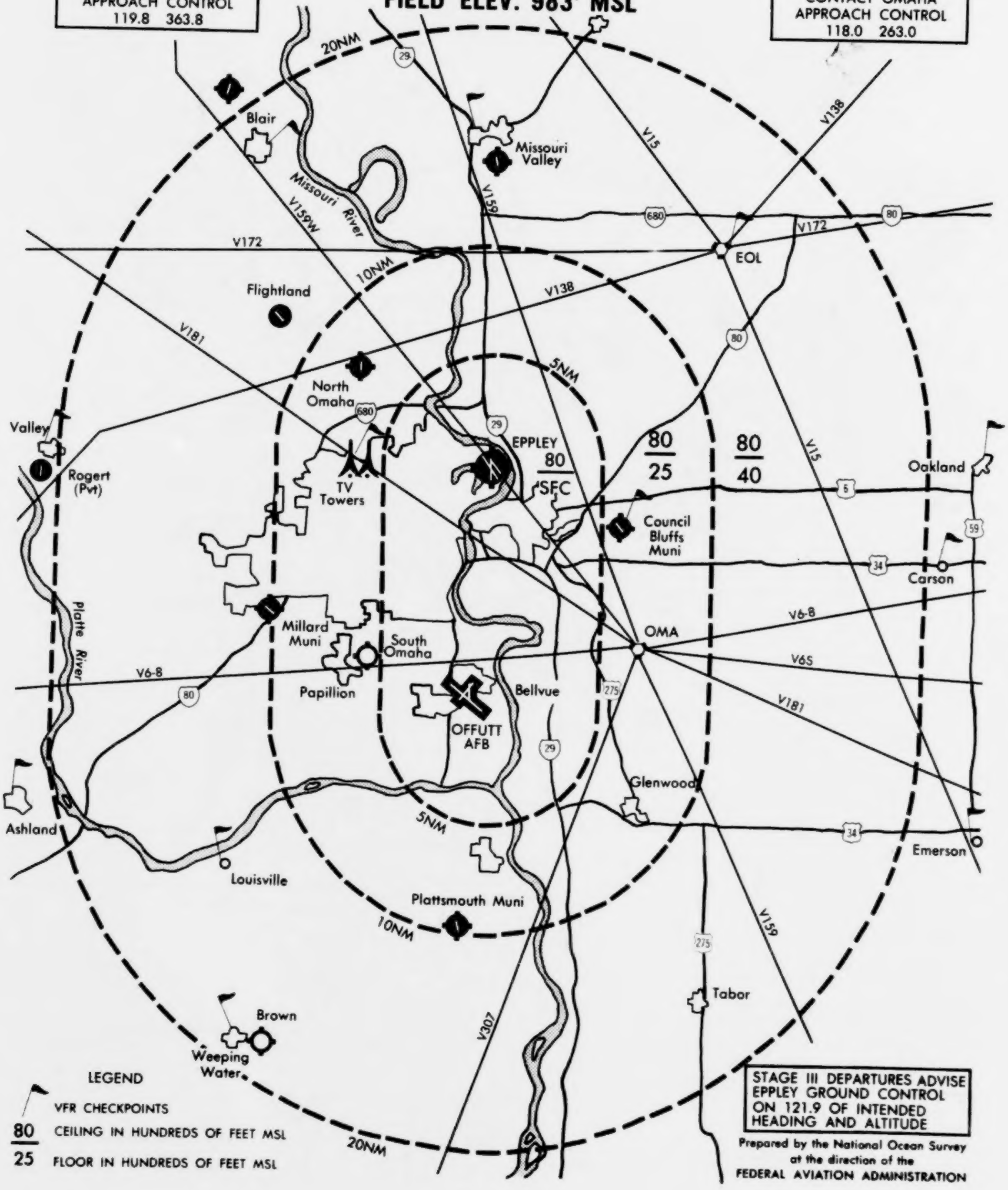
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

OMAHA, NEBRASKA

OFFUTT AFB EPPLEY AIRFIELD
FIELD ELEV. 1048' MSL
FIELD ELEV. 983' MSL

WEST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
119.8 363.8

EAST OF MISSOURI RIVER
CONTACT OMAHA
APPROACH CONTROL
118.0 263.0


20NM
10NM
5NM
5NM
10NM
20NM
29
V15
V138
Blair
Missouri Valley
Missouri River
V159W
V159
680
80
V172
V172
EOL
Flightland
V138
V181
North Omaha
680
29
EPPLEY
80
SFC
80
25
80
40
Valley
Rogert (Pvt)
TV Towers
Oakland
6
59
Council Bluffs Muni
34
Carson
Platte River
Millard Muni
South Omaha
OMA
V6-8
V6-8
V6S
V181
80
Papillion
Bellvue
275
OFFUTT AFB
29
Glenwood
Ashland
Louisville
34
Emerson
Plattsmouth Muni
275
V159
V307
Tabor
Brown
Weeping Water

LEGEND

VFR CHECKPOINTS

$\frac{80}{25}$ 80 CEILING IN HUNDREDS OF FEET MSL
25 FLOOR IN HUNDREDS OF FEET MSL

STAGE III DEPARTURES ADVISE
EPPLEY GROUND CONTROL
ON 121.9 OF INTENDED
HEADING AND ALTITUDE

Prepared by the National Ocean Survey
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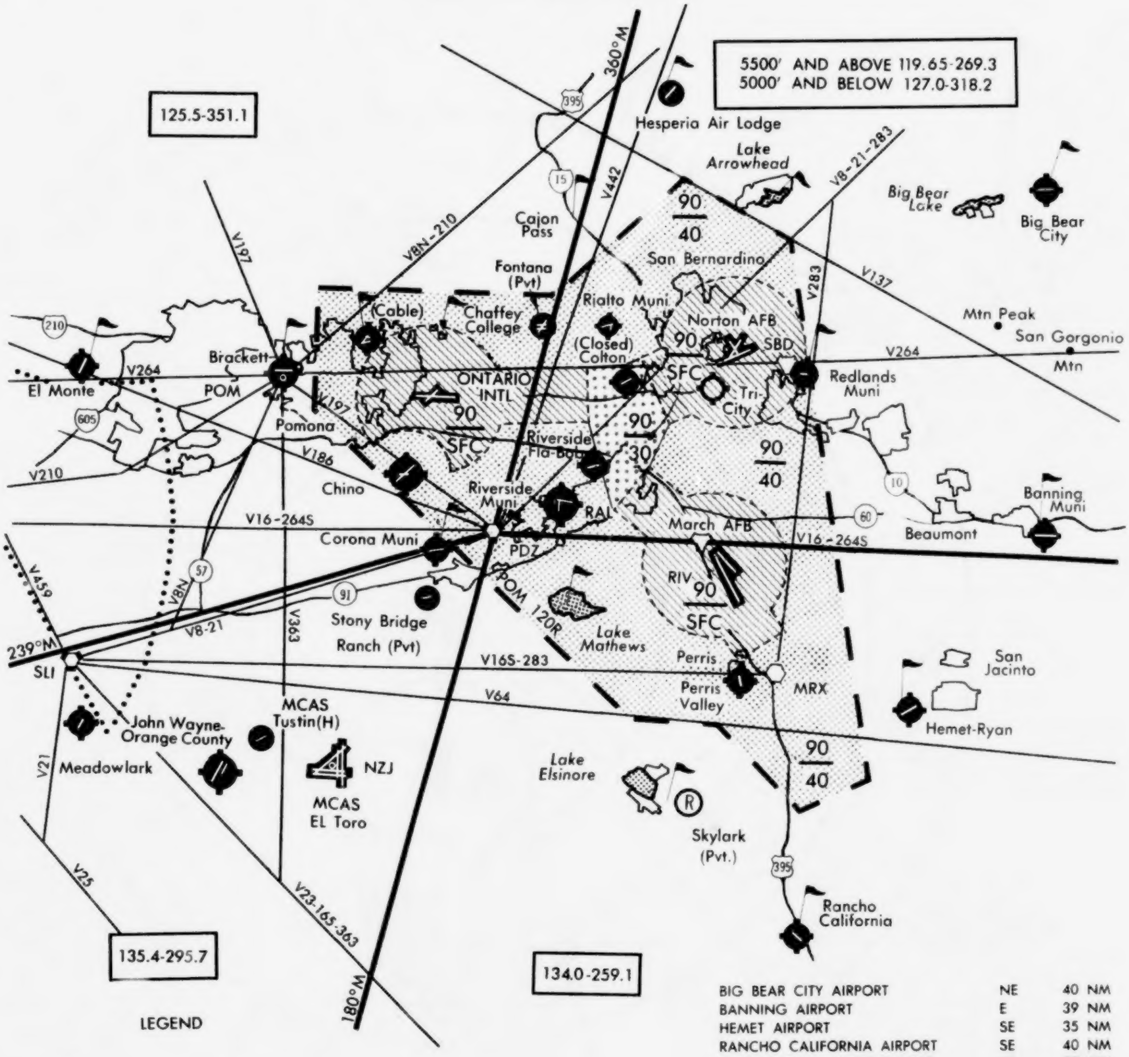
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ONTARIO, CALIFORNIA, ONTARIO INTERNATIONAL
FIELD ELEV 952' MSL


5500' AND ABOVE 119.65-269.3
5000' AND BELOW 127.0-318.2
125.5-351.1
135.4-295.7
134.0-259.1
360°M
180°M
239°M
395
15
Hesperia Air Lodge
Lake Arrowhead
V8-21-283
Big Bear Lake
Big Bear City
Cajon Pass
V442
V197
V8N-210
90
40
San Bernardino
V283
V137
Fontana (Pvt)
Rialto Muni
(Cable)
Chaffey College
Norton AFB
SBD
Mtn Peak
San Gorgonio Mtn
210
V264
(Closed) Colton
SFC
Tri-City
Redlands Muni
Brackett
El Monte
POM
ONTARIO INTL
90
SFC
605
Pomona
V197
90
30
Riverside Fla-Bob
90
40
V210
V186
Chino
Riverside Muni
RAL
10
Banning Muni
V16-264S
March AFB
60
Beaumont
Corona Muni
PDZ
V16-264S
V459
57
V8N
91
POM 120R
RIV
90
SFC
Stony Bridge Ranch (Pvt)
V363
Lake Mathews
V8-21
SLI
V16S-283
Perris
San Jacinto
Perris Valley
MRX
V64
MCAS Tustin(H)
John Wayne-Orange County
Hemet-Ryan
V21
Meadowlark
NZJ
Lake Elsinore
90
40
MCAS El Toro
R
Skylark (Pvt.)
V25
395
V23-165-363
Rancho California

LEGEND

VFR CHECK POINT

▨ SURFACE TO 9000' MSL WITHIN AIRPORT CONTROL ZONE

▒ 3000' MSL-9000' MSL

░ 4000' MSL-9000' MSL

••••••••• LOS ANGELES TCA

— — TERMINAL RADAR SERVICE AREA

$\frac{90}{40}$ CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL

BIG BEAR CITY AIRPORT	NE	40 NM
BANNING AIRPORT	E	39 NM
HEMET AIRPORT	SE	35 NM
RANCHO CALIFORNIA AIRPORT	SE	40 NM
SKYLARK FIELD/LAKE ELSINORE	SE	27 NM
LAKE MATHEWS	SE	16 NM
CORONA AIRPORT	S	10 NM
EL MONTE AIRPORT	W	22 NM
BRACKETT AIRPORT/POMONA VOR	W	10 NM
CHAFFEY COLLEGE	NE	5 NM
LAKE ARROWHEAD	NE	24 NM
CAJON PASS	NE	13 NM
REDLANDS AIRPORT	E	22 NM
HESPERIA AIR PARK	NE	24 NM
CABLE AIRPORT	NW	5 NM
ONTARIO VOR	SE	9 NM

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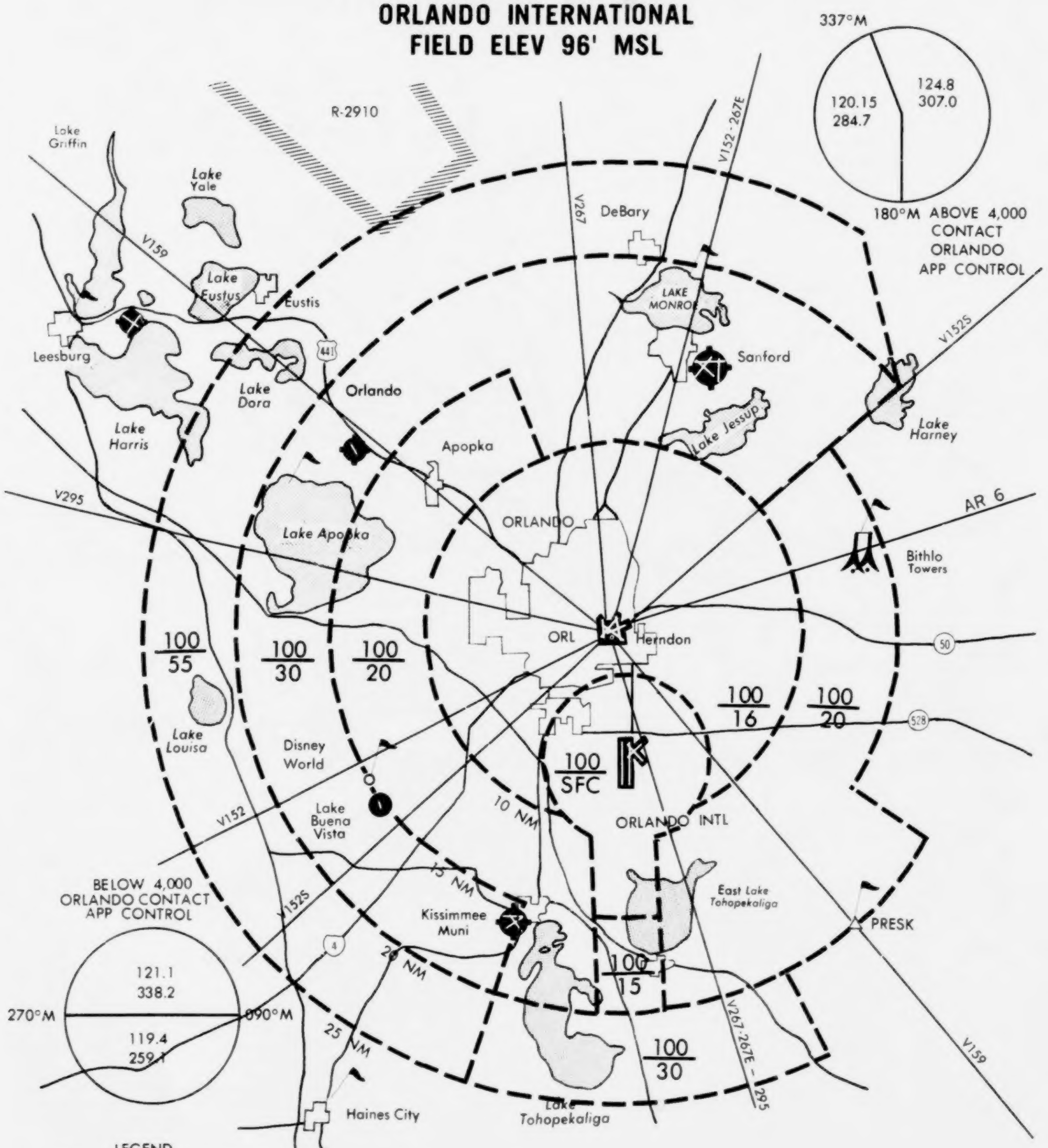
29 NOV 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ORLANDO, FLORIDA
ORLANDO INTERNATIONAL
FIELD ELEV 96' MSL


337°M
120.15
284.7
124.8
307.0
180°M ABOVE 4,000
CONTACT
ORLANDO
APP CONTROL
R-2910
Lake Griffin
Lake Yale
V159
Lake Eustus
Eustis
Leesburg
441
Lake Dora
Orlando
Lake Harris
V295
Lake Apopka
Apopka
V267
DeBary
V152-267E
LAKE MONROE
Sanford
Lake Jessup
V152S
Lake Harney
AR 6
Bithlo Towers
ORLANDO
ORL
Herndon
50
528
100
55
100
30
100
20
100
16
100
20
100
SFC
Lake Louisa
Disney World
Lake Buena Vista
V152
10 NM
15 NM
20 NM
25 NM
ORLANDO INTL
East Lake Tohopekaliga
PRESK
BELOW 4,000
ORLANDO CONTACT
APP CONTROL
V152S
Kissimmee Muni
4
121.1
338.2
270°M
090°M
119.4
259.1
100
15
100
30
V267-267E - 295
V159
Haines City
Lake Tohopekaliga

LEGEND

VFR CHECK POINT

100 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

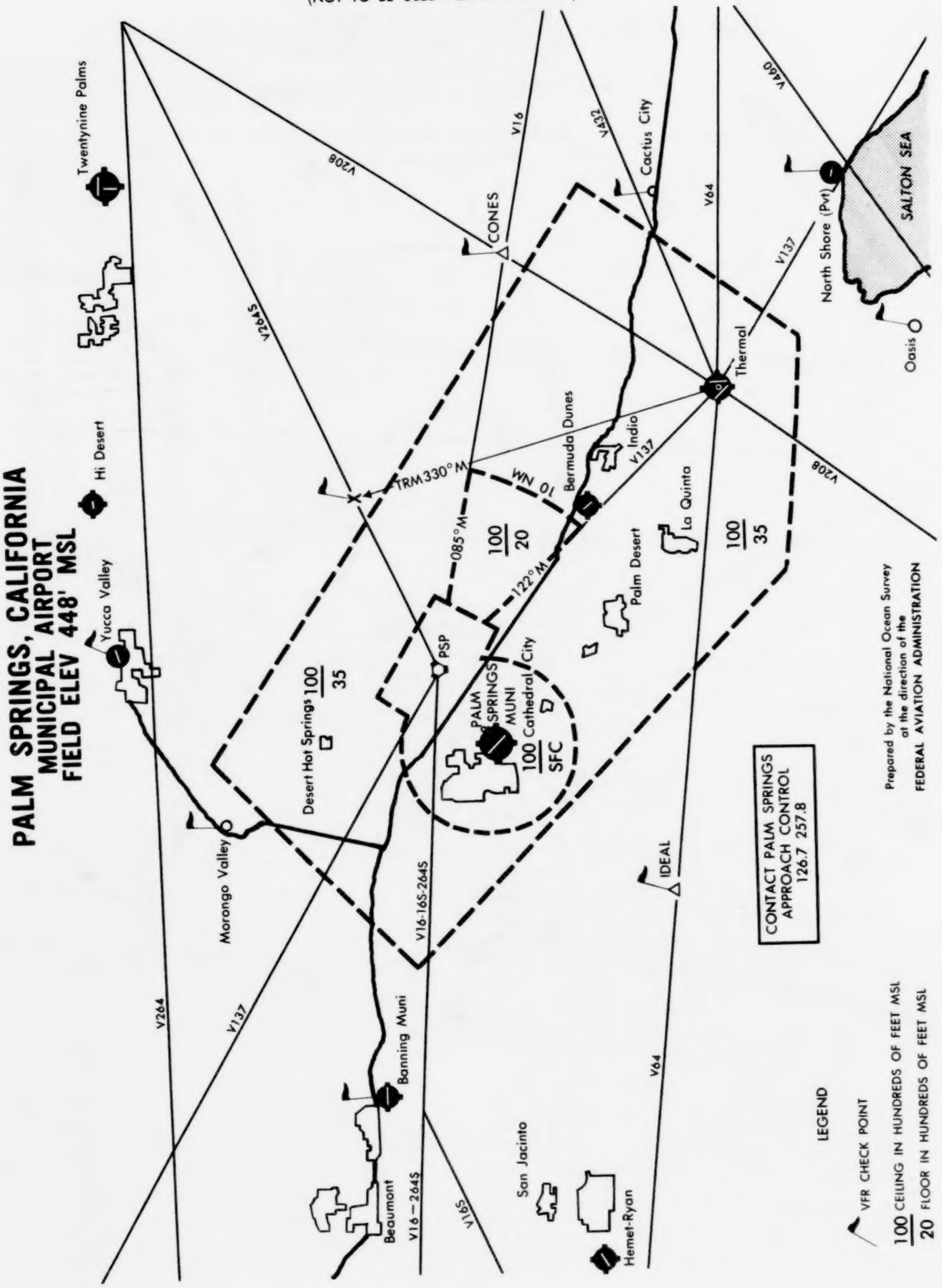
VFR DEPARTURES ARE REQUESTED
TO CONTACT ORLANDO TOWER
GROUND CONTROL PRIOR TO TAXI
121.85

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

21 APR 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PALM SPRINGS, CALIFORNIA
MUNICIPAL AIRPORT
FIELD ELEV 448' MSL


Twentynine Palms
Hi Desert
Yucca Valley
Morongo Valley
Desert Hot Springs
100/35
PSP
PALM SPRINGS MUNI
Cathedral City
100/SFC
Palm Desert
La Quinta
100/20
100/35
Bermuda Dunes
Indio
Thermal
Cactus City
CONES
TRM 330° M
10 NM
085° M
122° M
North Shore (Pvt)
SALTON SEA
Oasis
IDEAL
Banning Muni
Beaumont
San Jacinto
Hemet-Ryan
V264
V137
V16-16S-264S
V16-264S
V16S
V64
V264S
V208
V16
V432
V64
V137
V460
V208
V137

CONTACT PALM SPRINGS
APPROACH CONTROL
126.7 257.8

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

LEGEND

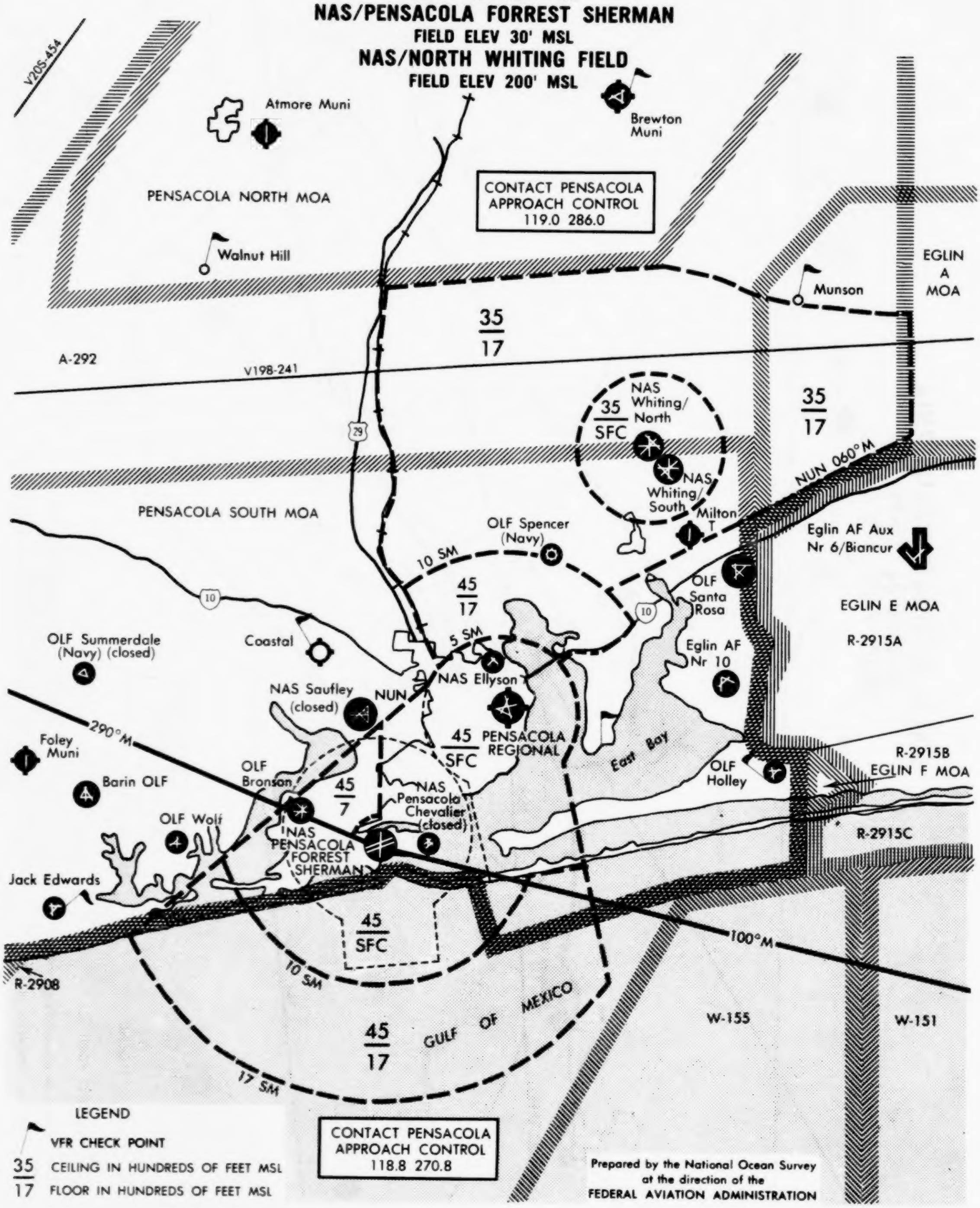
VFR CHECK POINT

$\frac{100}{20}$ 100 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

17 DEC 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

PENSACOLA, FLORIDA
PENSACOLA REGIONAL AIRPORT
FIELD ELEV 121' MSL
NAS/PENSACOLA FORREST SHERMAN
FIELD ELEV 30' MSL
NAS/NORTH WHITING FIELD
FIELD ELEV 200' MSL


V20S-454
Atmore Muni
Brewton Muni
PENSACOLA NORTH MOA
Walnut Hill
Munson
EGLIN A MOA
35/17
A-292
V198-241
29
35/SFC
NAS Whiting/North
NAS Whiting/South
35/17
NUN 060°M
PENSACOLA SOUTH MOA
Milton T
OLF Spencer (Navy)
Eglin AF Aux Nr 6/Biancur
10 SM
45/17
10
10
OLF Santa Rosa
EGLIN E MOA
OLF Summerdale (Navy) (closed)
Coastal
5 SM
Eglin AF Nr 10
R-2915A
NAS Ellyson
NAS Saufley (closed)
NUN
290°M
Foley Muni
45/SFC
PENSACOLA REGIONAL
East Bay
R-2915B
EGLIN F MOA
OLF Bronson
OLF Holley
Barin OLF
45/7
NAS Pensacola Chevalier (closed)
OLF Wolf
NAS PENSACOLA FORREST SHERMAN
R-2915C
Jack Edwards
45/SFC
100°M
R-2908
10 SM
GULF OF MEXICO
W-155
W-151
45/17
17 SM

CONTACT PENSACOLA
APPROACH CONTROL
119.0 286.0

CONTACT PENSACOLA
APPROACH CONTROL
118.8 270.8

LEGEND

VFR CHECK POINT

35 CEILING IN HUNDREDS OF FEET MSL

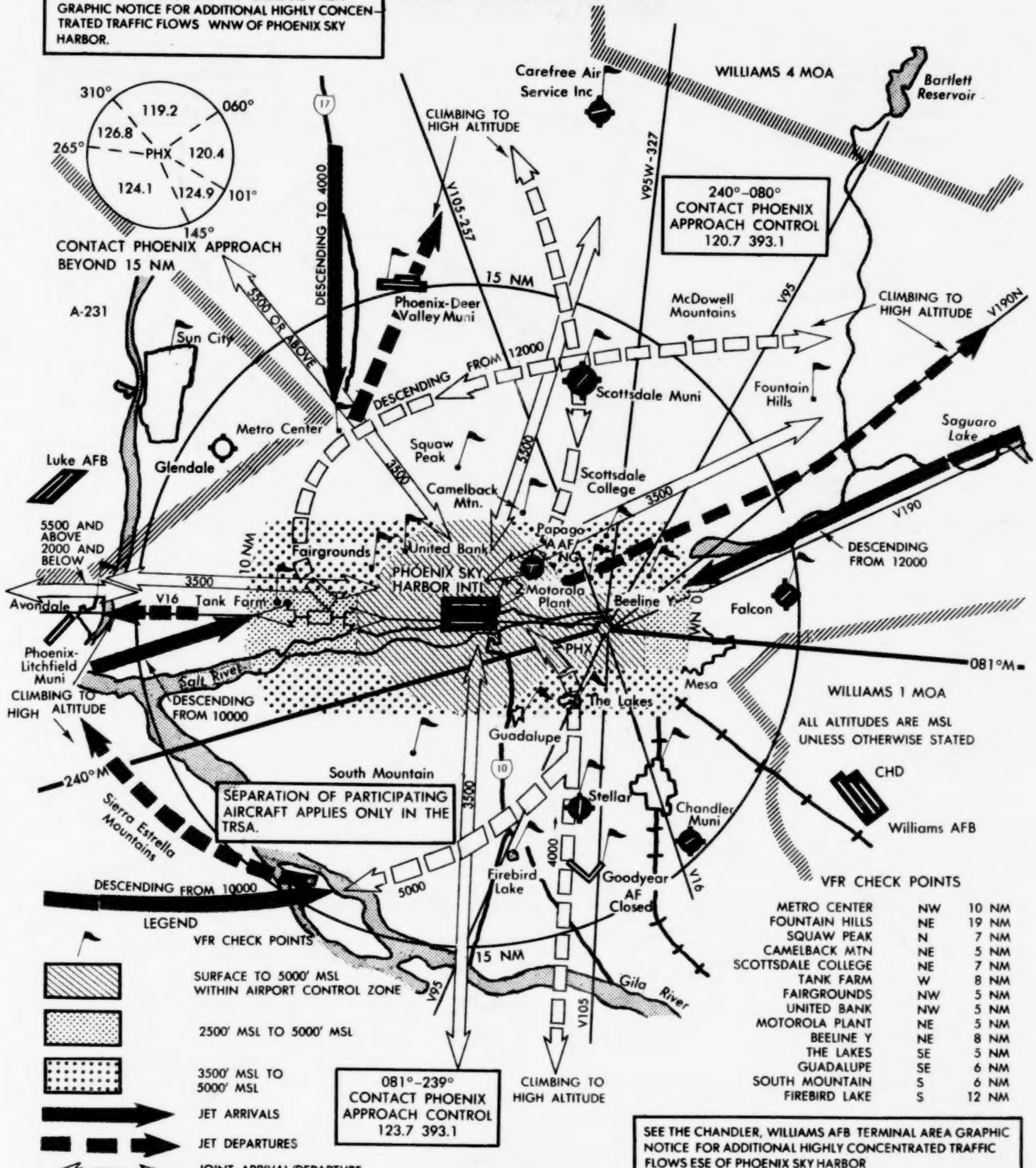
17 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA/ TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PHOENIX, ARIZONA PHOENIX SKY HARBOR INTL
FIELD ELEV. 1132′ MSL

SEE THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW OF PHOENIX SKY HARBOR.


310°
119.2
060°
126.8
265°
PHX
120.4
124.1
124.9
101°
145°
CONTACT PHOENIX APPROACH BEYOND 15 NM
A-231
Sun City
17
DESCENDING TO 4000
V105-257
CLIMBING TO HIGH ALTITUDE
Carefree Air Service Inc
WILLIAMS 4 MOA
Bartlett Reservoir
V95W-327
240°–080° CONTACT PHOENIX APPROACH CONTROL 120.7 393.1
3500 OR ABOVE
Phoenix-Deer Valley Muni
15 NM
McDowell Mountains
V95
CLIMBING TO HIGH ALTITUDE
V190N
DESCENDING FROM 12000
Scottsdale Muni
Fountain Hills
Metro Center
Squaw Peak
3500
5500
Saguaro Lake
Luke AFB
Glendale
Camelback Mtn.
Scottsdale College
3500
V190
5500 AND ABOVE 2000 AND BELOW
10 NM
Fairgrounds
United Bank
Papago AAF NG
DESCENDING FROM 12000
3500
PHOENIX SKY HARBOR INTL
Motorola Plant
Beeline Y
Falcon
Avondale
V16
Tank Farm
10 NM
PHX
081°M
Phoenix-Litchfield Muni
Salt River
Mesa
WILLIAMS 1 MOA
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 10000
The Lakes
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
Guadalupe
240°M
South Mountain
10
3500
CHD
Stellar
Chandler Muni
Williams AFB
Sierra Estrella Mountains
4000
Firebird Lake
Goodyear AF Closed
V16
DESCENDING FROM 10000
5000
15 NM
V95
Gila River
V105
CLIMBING TO HIGH ALTITUDE

SEPARATION OF PARTICIPATING AIRCRAFT APPLIES ONLY IN THE TRSA.

081°–239°
CONTACT PHOENIX APPROACH CONTROL
123.7 393.1

LEGEND

- ⚑ VFR CHECK POINTS
- ▨ SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
- ░ 2500′ MSL TO 5000′ MSL
- ⁙ 3500′ MSL TO 5000′ MSL
- ➡ JET ARRIVALS
- ➡ JET DEPARTURES
- ⇦ ▭ ⇨ JOINT ARRIVAL/DEPARTURE ROUTE
- ⇔ VFR ROUTE

VFR CHECK POINTS

METRO CENTER	NW	10 NM
FOUNTAIN HILLS	NE	19 NM
SQUAW PEAK	N	7 NM
CAMELBACK MTN	NE	5 NM
SCOTTSDALE COLLEGE	NE	7 NM
TANK FARM	W	8 NM
FAIRGROUNDS	NW	5 NM
UNITED BANK	NW	5 NM
MOTOROLA PLANT	NE	5 NM
BEELINE Y	NE	8 NM
THE LAKES	SE	5 NM
GUADALUPE	SE	6 NM
SOUTH MOUNTAIN	S	6 NM
FIREBIRD LAKE	S	12 NM

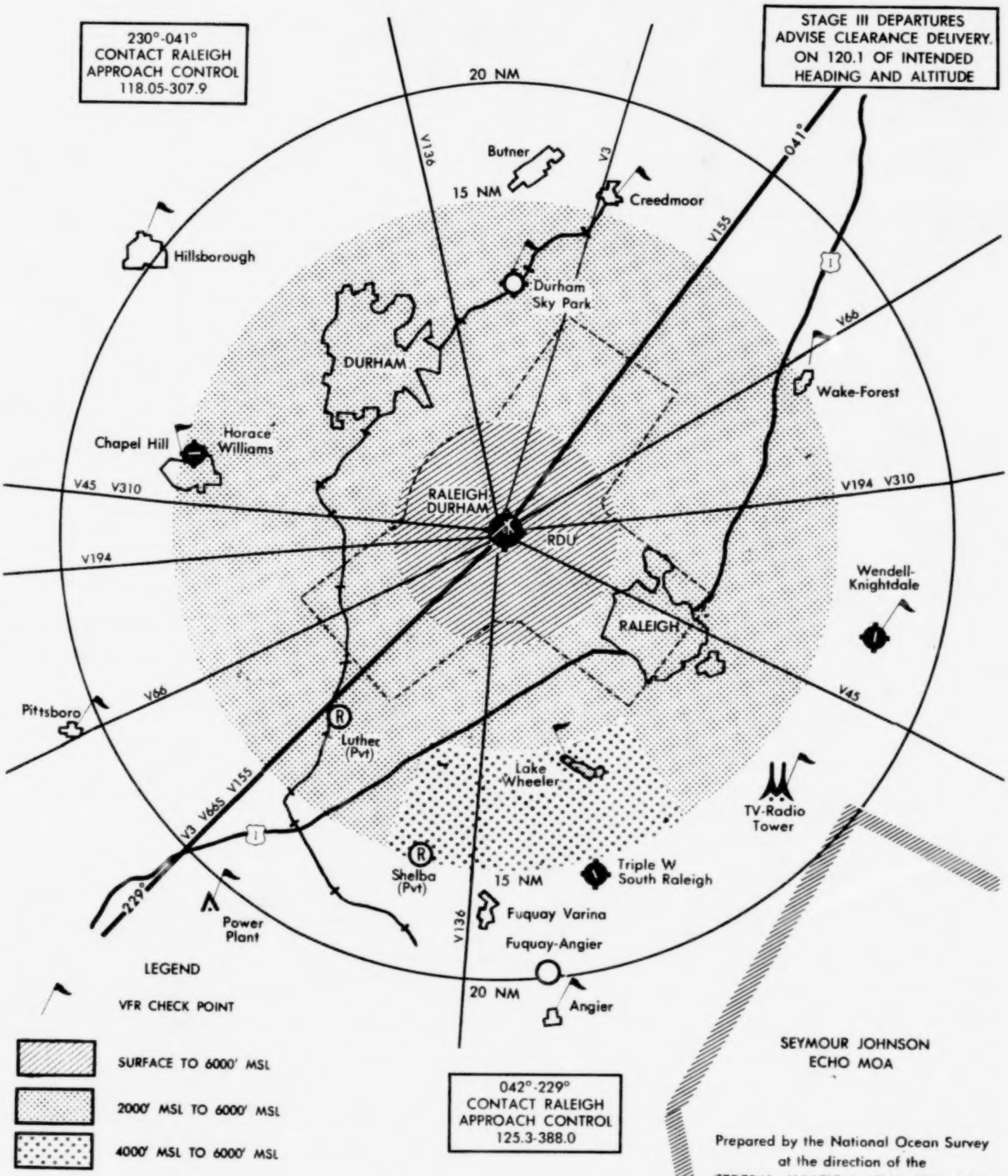
SEE THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE OF PHOENIX SKY HARBOR

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RALEIGH, N.C. RALEIGH-DURHAM AIRPORT
FIELD ELEV 437' MSL


20 NM
15 NM
V136
V3
Butner
Creedmoor
041°
V155
Hillsborough
Durham
Sky Park
DURHAM
V66
Wake-Forest
Chapel Hill
Horace
Williams
V45
V310
V194
V310
RALEIGH-
DURHAM
RDU
V194
Wendell-
Knightdale
RALEIGH
V45
V66
Pittsboro
Luther
(Pvt)
Lake
Wheeler
V3
V66S
V155
TV-Radio
Tower
229°
Shelba
(Pvt)
15 NM
Triple W
South Raleigh
Power
Plant
Fuquay Varina
Fuquay-Angier
V136
20 NM
Angier
SEYMOUR JOHNSON
ECHO MOA

230°-041°
CONTACT RALEIGH
APPROACH CONTROL
118.05-307.9

STAGE III DEPARTURES
ADVISE CLEARANCE DELIVERY
ON 120.1 OF INTENDED
HEADING AND ALTITUDE

LEGEND

VFR CHECK POINT

▨ SURFACE TO 6000' MSL

░ 2000' MSL TO 6000' MSL

⁘ 4000' MSL TO 6000' MSL

042°-229°
CONTACT RALEIGH
APPROACH CONTROL
125.3-388.0

Prepared by the National Ocean Survey
at the direction of the
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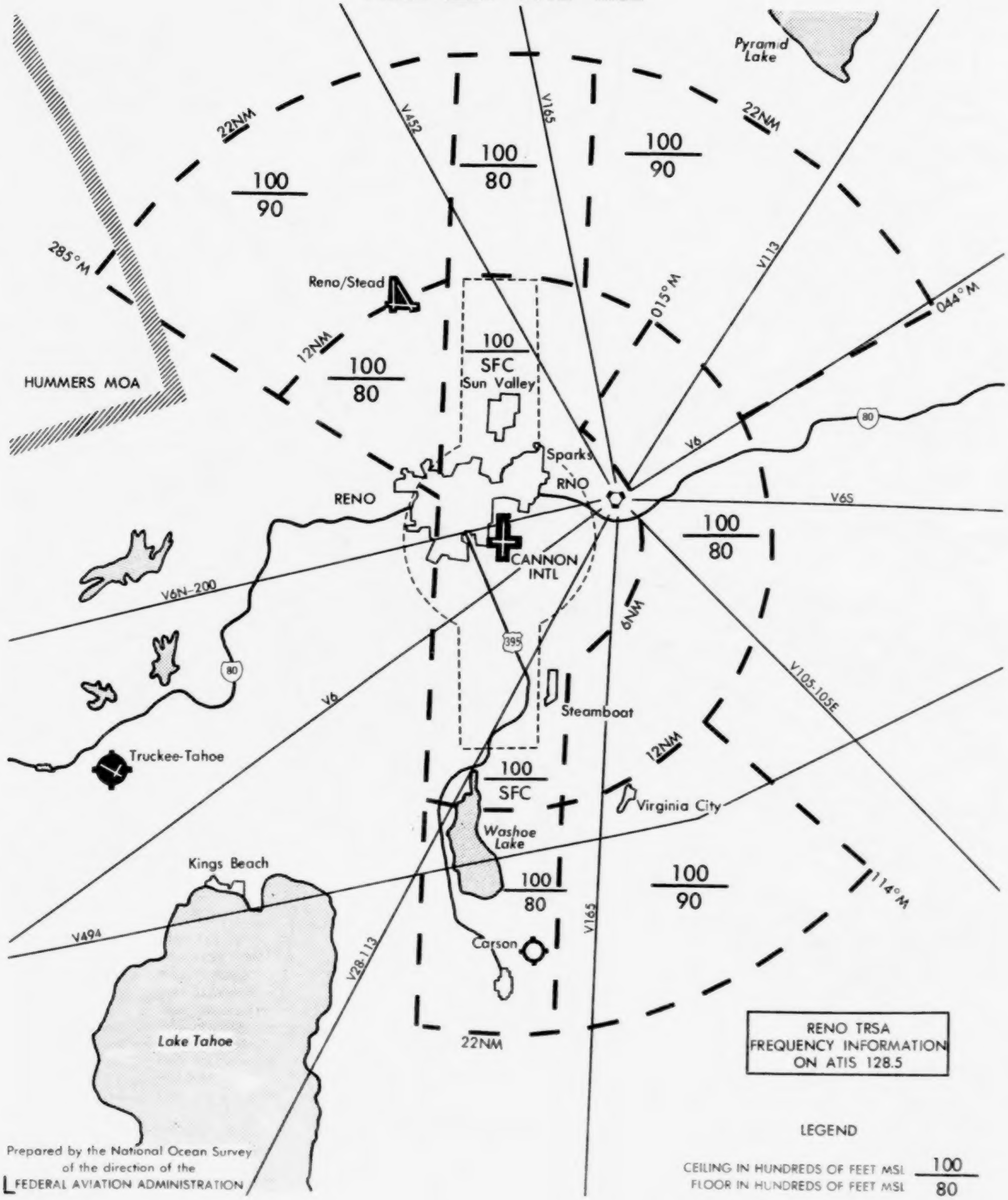
24 JAN 1980

RENO, NEVADA
CANNON INTL AIRPORT
FIELD ELEV 4412' MSL


Pyramid Lake
22NM
22NM
V452
V165
100/80
100/90
100/90
285°M
V113
015°M
044°M
Reno/Stead
12NM
100/SFC
Sun Valley
100/80
HUMMERS MOA
Sparks
RNO
RENO
V6
80
V6S
100/80
CANNON INTL
V6N-200
6NM
395
80
V105-105E
V6
Steamboat
Truckee-Tahoe
12NM
100/SFC
Virginia City
Washoe Lake
Kings Beach
100/80
100/90
114°M
V494
V165
V28-113
Carson
Lake Tahoe
22NM

RENO TRSA
FREQUENCY INFORMATION
ON ATIS 128.5

LEGEND

CEILING IN HUNDREDS OF FEET MSL 100
FLOOR IN HUNDREDS OF FEET MSL 80

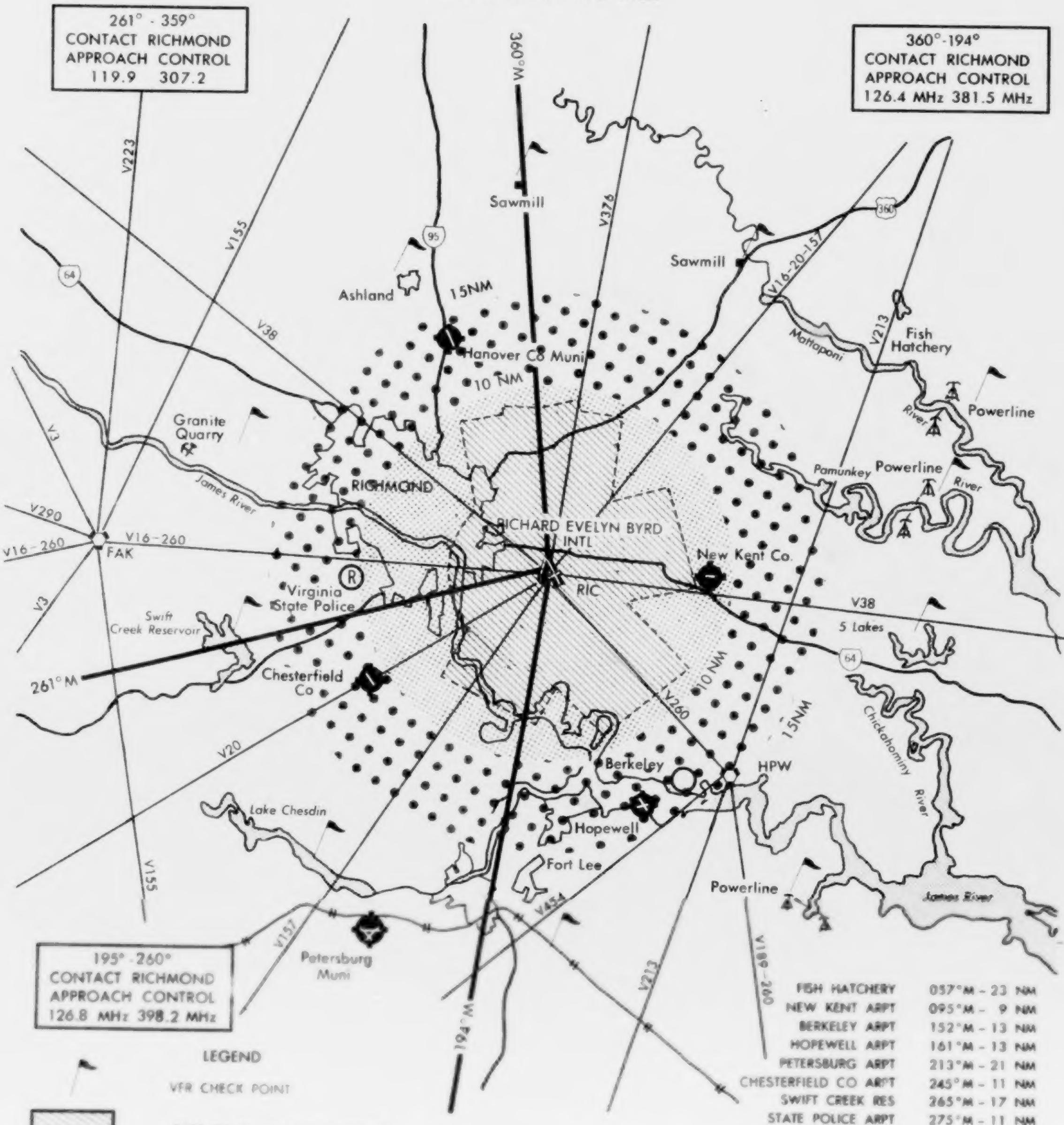
Prepared by the National Ocean Survey
of the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA

(NOT TO BE USED FOR NAVIGATION)

RICHMOND, VA. RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
FIELD ELEV. 168′ MSL


360°M
Sawmill
V223
V155
V376
Sawmill
360
V16-20-157
64
95
Ashland
15NM
V38
Hanover Co Muni
10 NM
Mattaponi
V213
Fish Hatchery
Powerline
River
Granite Quarry
V3
RICHMOND
James River
Pamunkey
Powerline
River
V290
V16-260
V16-260
FAK
RICHARD EVELYN BYRD INTL
New Kent Co.
RIC
R
Virginia State Police
V38
5 Lakes
Swift Creek Reservoir
64
261°M
Chesterfield Co
10 NM
V260
15NM
Chickahominy River
V20
Berkeley
HPW
Lake Chesdin
Hopewell
Fort Lee
Powerline
James River
V155
V157
V454
Petersburg Muni
V213
V189-260
194°M

261° - 359°
CONTACT RICHMOND
APPROACH CONTROL
119.9 307.2

360°-194°
CONTACT RICHMOND
APPROACH CONTROL
126.4 MHz 381.5 MHz

195°-260°
CONTACT RICHMOND
APPROACH CONTROL
126.8 MHz 398.2 MHz

FISH HATCHERY	057°M - 23 NM
NEW KENT ARPT	095°M - 9 NM
BERKELEY ARPT	152°M - 13 NM
HOPEWELL ARPT	161°M - 13 NM
PETERSBURG ARPT	213°M - 21 NM
CHESTERFIELD CO ARPT	245°M - 11 NM
SWIFT CREEK RES	265°M - 17 NM
STATE POLICE ARPT	275°M - 11 NM
ASHLAND	340°M - 17 NM
HANOVER CO ARPT	342°M - 13 NM

LEGEND

⚑	VFR CHECK POINT
▨	SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
░	2000′ TO 6000′ MSL
●	3000′ MSL TO 6000′ MSL

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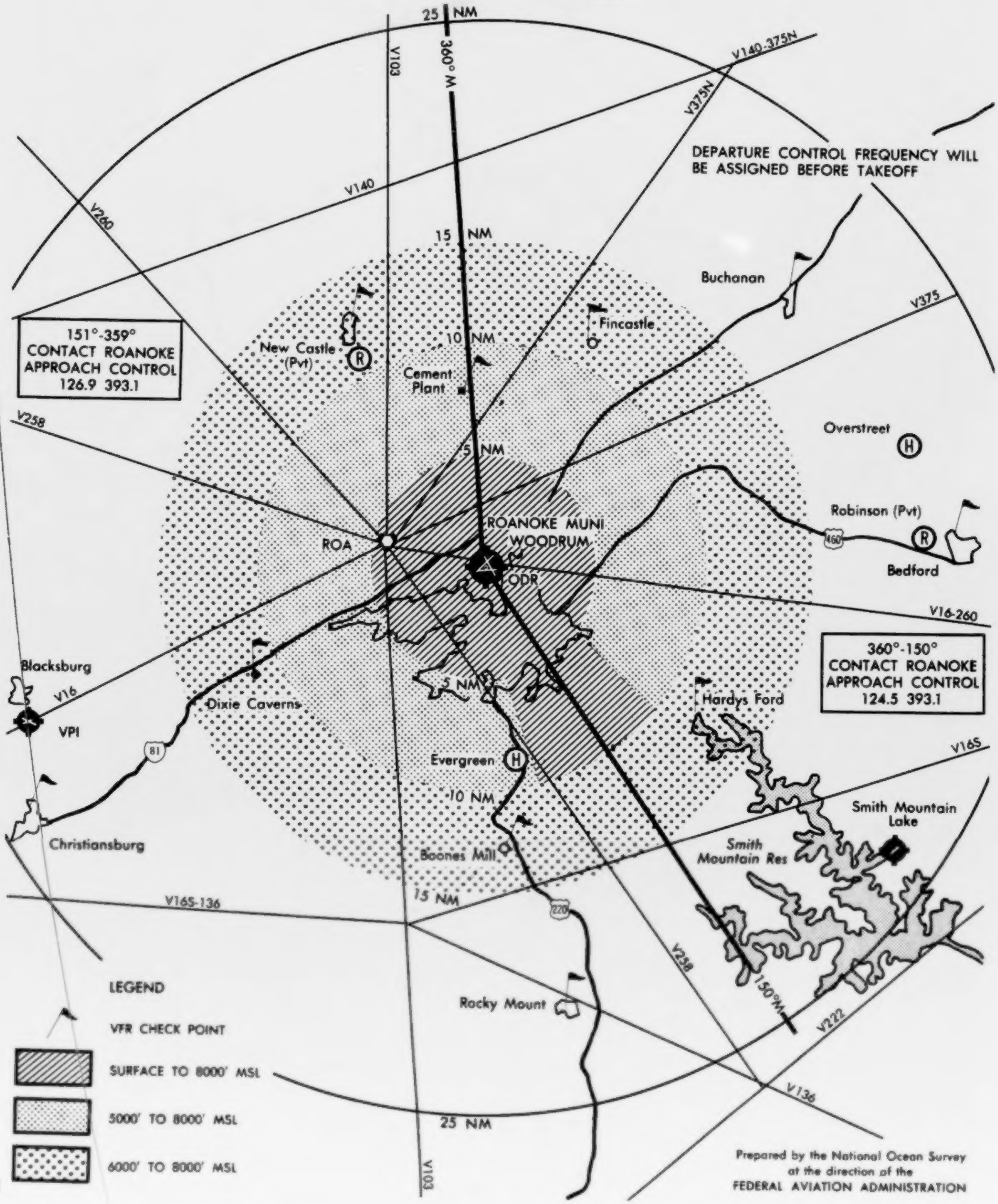
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 SEP 1979

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

ROANOKE, VIRGINIA
WOODRUM MUNICIPAL AIRPORT
FIELD ELEV 1175′ MSL


25 NM
360° M
V103
V140-375N
V375N
V140
V260
DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF
15 NM
Buchanan
V375
151°-359° CONTACT ROANOKE APPROACH CONTROL 126.9 393.1
New Castle (Pvt)
R
10 NM
Fincastle
Cement Plant
V258
5 NM
Overstreet
H
Robinson (Pvt)
R
460
Bedford
ROANOKE MUNI WOODRUM
ROA
ODR
V16-260
360°-150° CONTACT ROANOKE APPROACH CONTROL 124.5 393.1
Blacksburg
V16
VPI
Dixie Caverns
81
5 NM
Hardys Ford
V16S
Evergreen
H
10 NM
Smith Mountain Lake
Smith Mountain Res
Christiansburg
Boones Mill
V16S-136
15 NM
220
V258
150° M
Rocky Mount
V222
V136
25 NM
V103
LEGEND
VFR CHECK POINT
SURFACE TO 8000′ MSL
5000′ TO 8000′ MSL
6000′ TO 8000′ MSL

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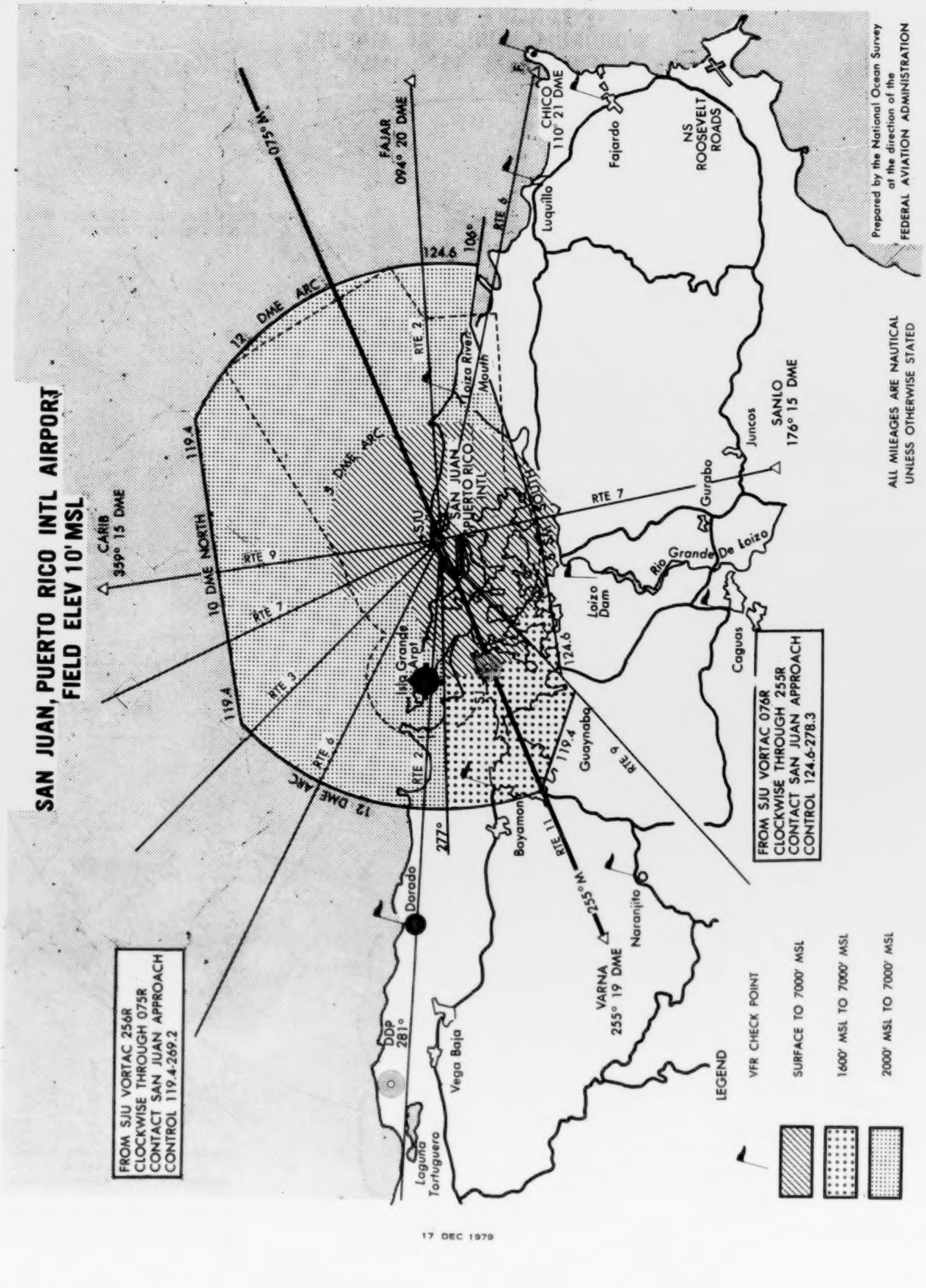
FEDERAL AVIATION ADMINISTRATION

13 JUL 1978

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)


SAN JUAN, PUERTO RICO INTL AIRPORT
FIELD ELEV 10' MSL
FROM SJU VORTAC 256R CLOCKWISE THROUGH 075R CONTACT SAN JUAN APPROACH CONTROL 119.4-269.2
FROM SJU VORTAC 076R CLOCKWISE THROUGH 255R CONTACT SAN JUAN APPROACH CONTROL 124.6-278.3
CARIB 359° 15 DME
FAJAR 094° 20 DME
CHICO 110° 21 DME
SANLO 176° 15 DME
VARNA 255° 19 DME
DDP 281°
075° M
255° M
277°
106°
12 DME ARC
10 DME NORTH
5 DME ARC
5 DME SOUTH
119.4
124.6
RTE 2
RTE 3
RTE 6
RTE 7
RTE 9
RTE 11
SJU
SAN JUAN PUERTO RICO INTL
Isla Grande Arpt
Loiza River Mouth
Loiza Dam
Rio Grande De Loizo
Luquillo
Fajardo
NS ROOSEVELT ROADS
Juncos
Gurabo
Caguas
Guaynabo
Bayamon
Naranjito
Dorado
Vega Baja
Laguna Tortuguero
LEGEND
VFR CHECK POINT
SURFACE TO 7000' MSL
1600' MSL TO 7000' MSL
2000' MSL TO 7000' MSL
ALL MILEAGES ARE NAUTICAL UNLESS OTHERWISE STATED
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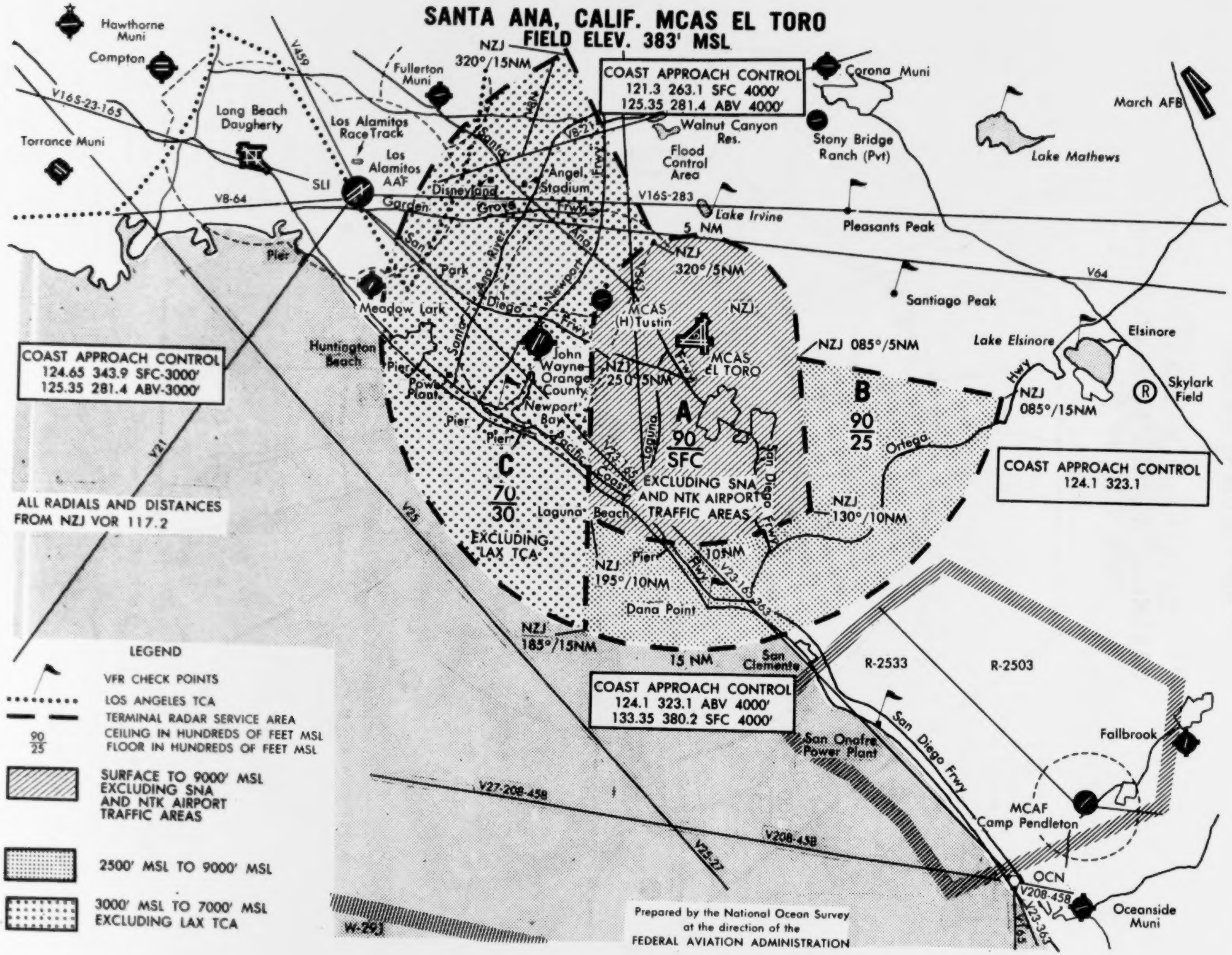
SANTA ANA, CALIF. MCAS EL TORO
FIELD ELEV. 383' MSL


COAST APPROACH CONTROL
121.3 263.1 SFC 4000'
125.35 281.4 ABV 4000'
COAST APPROACH CONTROL
124.65 343.9 SFC-3000'
125.35 281.4 ABV-3000'
COAST APPROACH CONTROL
124.1 323.1
COAST APPROACH CONTROL
124.1 323.1 ABV 4000'
133.35 380.2 SFC 4000'
ALL RADIALS AND DISTANCES FROM NZJ VOR 117.2
A
90/SFC
EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
B
90/25
C
70/30
EXCLUDING LAX TCA
NZJ 320°/15NM
NZJ 320°/5NM
NZJ 250°/5NM
NZJ 085°/5NM
NZJ 085°/15NM
NZJ 130°/10NM
NZJ 195°/10NM
NZJ 185°/15NM
NZJ
5 NM
10NM
15 NM
Hawthorne Muni
Compton
Torrance Muni
Long Beach Daugherty
SLI
Los Alamitos Race Track
Los Alamitos AAF
Fullerton Muni
Disneyland
Angel Stadium
Garden Grove Frwy
Santa Ana Frwy
Santa Ana River
San Diego Frwy
Newport Frwy
Park
Meadow Lark
Huntington Beach
Pier
Power Plant
John Wayne Orange County
Newport Bay
Pacific Coast Hwy
Laguna Beach
Laguna
MCAS (H) Tustin
MCAS El Toro
Dana Point
San Clemente
San Onofre Power Plant
Walnut Canyon Res.
Flood Control Area
Lake Irvine
Corona Muni
Stony Bridge Ranch (Pvt)
Pleasants Peak
Santiago Peak
Lake Mathews
March AFB
Lake Elsinore
Elsinore
Hwy
Skylark Field
Ortega
R-2533
R-2503
Fallbrook
MCAF Camp Pendleton
OCN
Oceanside Muni
V16S-23-165
V8-64
V459
V8-21
V16S-283
V64
V21
V25
V25-27
V27-208-458
V208-458
V23-165-363
V23-363
V165
W-293
LEGEND
VFR CHECK POINTS
LOS ANGELES TCA
TERMINAL RADAR SERVICE AREA
90/25 CEILING IN HUNDREDS OF FEET MSL FLOOR IN HUNDREDS OF FEET MSL
SURFACE TO 9000' MSL EXCLUDING SNA AND NTK AIRPORT TRAFFIC AREAS
2500' MSL TO 9000' MSL
3000' MSL TO 7000' MSL EXCLUDING LAX TCA

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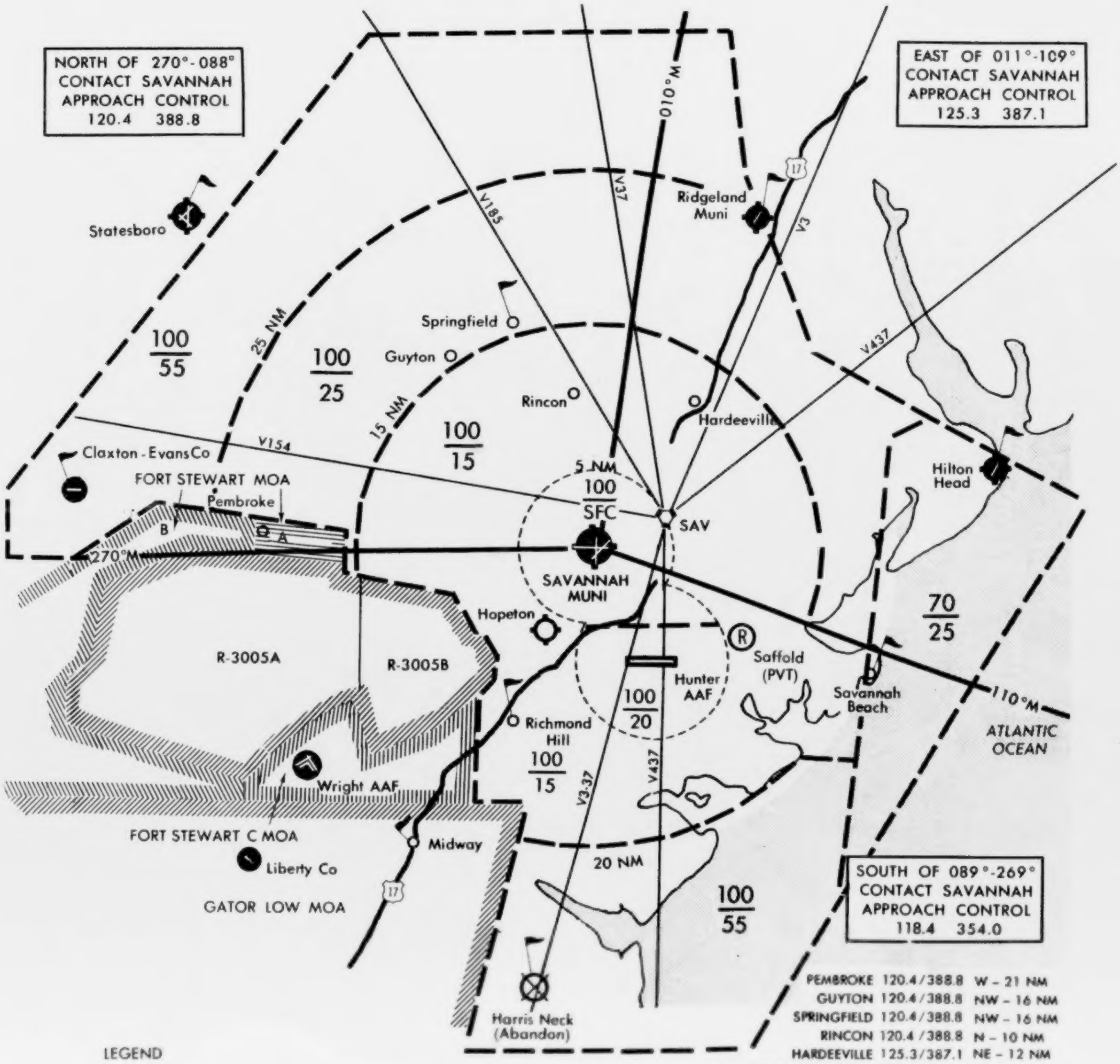
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SAVANNAH, GEORGIA
SAVANNAH MUNICIPAL AIRPORT
FIELD ELEV 50' MSL

NORTH OF 270°-088°
CONTACT SAVANNAH
APPROACH CONTROL
120.4 388.8

EAST OF 011°-109°
CONTACT SAVANNAH
APPROACH CONTROL
125.3 387.1


010°M
V185
V37
V3
V437
V154
25 NM
15 NM
5 NM
20 NM
Statesboro
Ridgeland Muni
17
Springfield
Guyton
Rincon
Hardeeville
Claxton - Evans Co
FORT STEWART MOA
Pembroke
B
A
270°M
100/55
100/25
100/15
100/SFC
SAV
SAVANNAH MUNI
Hilton Head
70/25
110°M
Hopeton
R-3005A
R-3005B
Saffold (PVT)
Hunter AAF
100/20
Savannah Beach
Richmond Hill
100/15
V3-37
V437
ATLANTIC OCEAN
Wright AAF
FORT STEWART C MOA
Midway
Liberty Co
GATOR LOW MOA
100/55
Harris Neck (Abandon)

SOUTH OF 089°-269°
CONTACT SAVANNAH
APPROACH CONTROL
118.4 354.0

PEMBROKE	120.4/388.8	W - 21 NM
GUYTON	120.4/388.8	NW - 16 NM
SPRINGFIELD	120.4/388.8	NW - 16 NM
RINCON	120.4/388.8	N - 10 NM
HARDEEVILLE	125.3/387.1	NE - 12 NM
SAVANNAH BEACH	118.4/354.0	SE - 20 NM
RICHMOND HILL	118.4/354.0	SW - 12 NM
HARRIS NECK (ABANDONED)	118.4/354.0	S - 29 NM
MIDWAY	118.4/354.0	SW - 22 NM

LEGEND

100 CEILING IN HUNDREDS OF FEET MSL
25 FLOOR IN HUNDREDS OF FEET MSL
⚑ VFR CHECK POINTS

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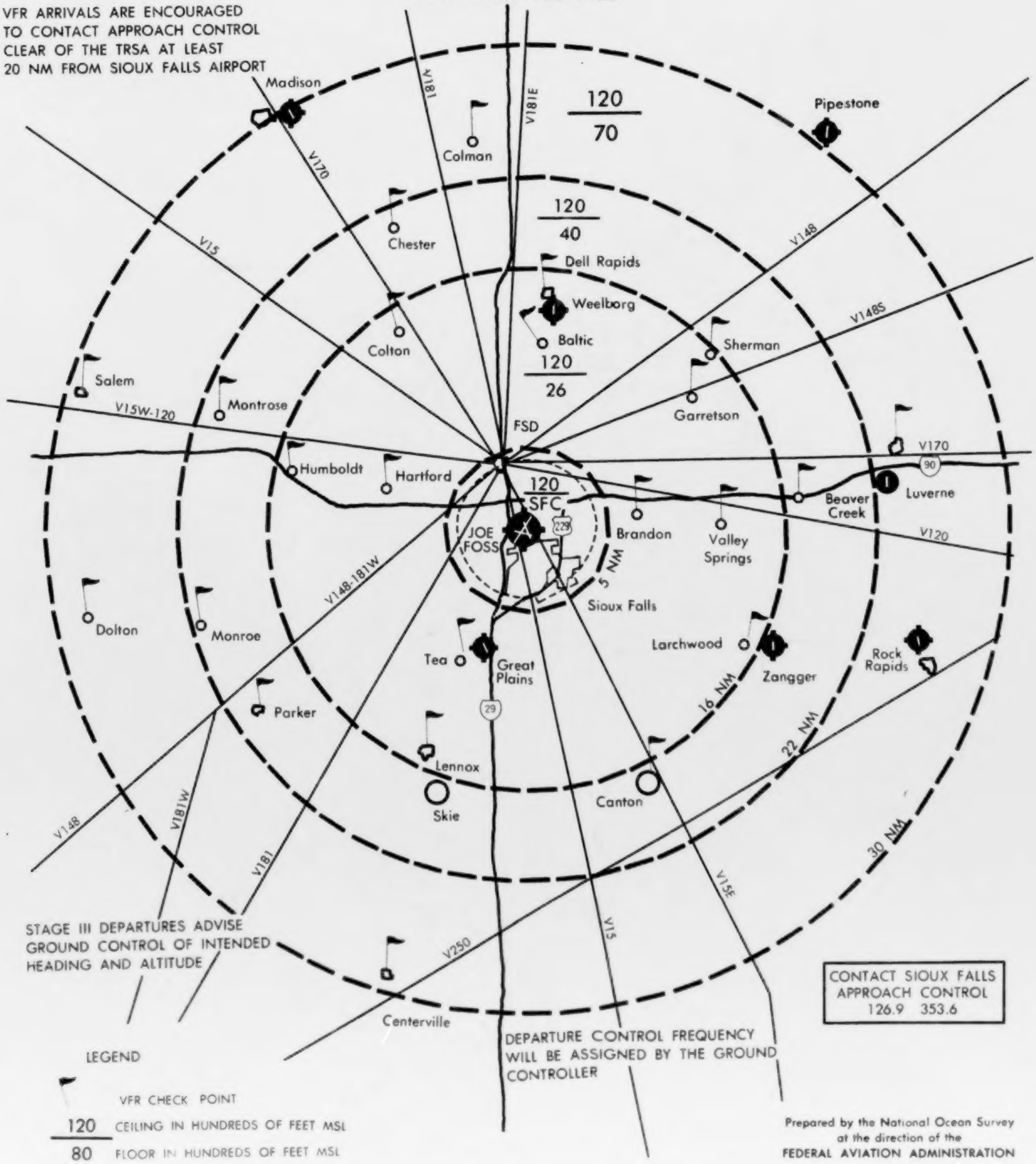
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SIOUX FALLS, SOUTH DAKOTA
JOE FOSS AIRPORT
FIELD ELEV 1429' MSL


Madison
V181
V181E
120
70
Pipestone
Colman
V170
120
40
Chester
V15
Dell Rapids
Weelborg
V148
V148S
Colton
Baltic
120
26
Sherman
Salem
Montrose
Garretson
V15W-120
FSD
V170
Humboldt
Hartford
120
SFC
90
Luverne
Beaver Creek
JOE FOSS
229
Brandon
Valley Springs
V120
5 NM
V148-181W
Sioux Falls
Dolton
Monroe
Tea
Great Plains
Larchwood
Zangger
Rock Rapids
16 NM
29
Parker
22 NM
Lennox
Skie
Canton
V148
V181W
V181
30 NM
V15E
V15
V250
Centerville

VFR ARRIVALS ARE ENCOURAGED TO CONTACT APPROACH CONTROL CLEAR OF THE TRSA AT LEAST 20 NM FROM SIOUX FALLS AIRPORT

STAGE III DEPARTURES ADVISE GROUND CONTROL OF INTENDED HEADING AND ALTITUDE

CONTACT SIOUX FALLS
APPROACH CONTROL
126.9 353.6

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BY THE GROUND CONTROLLER

LEGEND

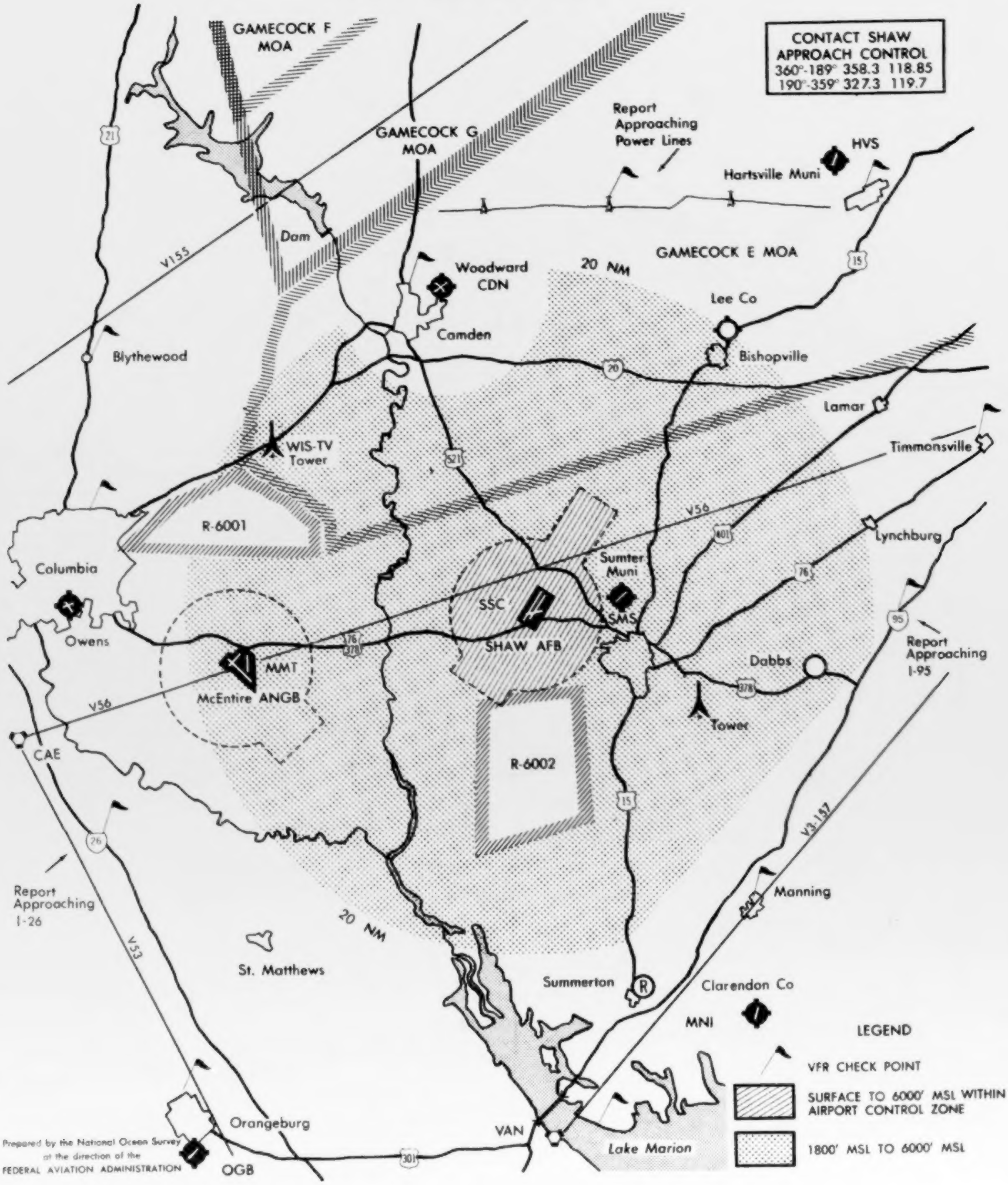
VFR CHECK POINT

120	CEILING IN HUNDREDS OF FEET MSL
80	FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SOUTH CAROLINA
SHAW AFB
FIELD ELEV 241′ MSL



CONTACT SHAW
APPROACH CONTROL
360°-189° 358.3 118.85
190°-359° 327.3 119.7

GAMECOCK F
MOA
GAMECOCK G
MOA
GAMECOCK E MOA
21
Report
Approaching
Power Lines
HVS
Hartsville Muni
Dam
V155
Woodward
CDN
20 NM
Lee Co
15
Camden
Blythewood
20
Bishopville
Lamar
WIS-TV
Tower
521
Timmonsville
R-6001
V56
401
Lynchburg
Columbia
Sumter
Muni
76
SSC
SMS
SHAW AFB
Owens
76
378
MMT
McEntire ANGB
95
Report
Approaching
I-95
Dabbs
378
Tower
V56
CAE
R-6002
15
26
V3-157
Report
Approaching
I-26
Manning
20 NM
V53
St. Matthews
Summerton
R
Clarendon Co
MNI
LEGEND
VFR CHECK POINT
SURFACE TO 6000′ MSL WITHIN AIRPORT CONTROL ZONE
1800′ MSL TO 6000′ MSL
Orangeburg
VAN
Lake Marion
301
OGB

Prepared by the National Ocean Survey
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FEDERAL AVIATION ADMINISTRATION

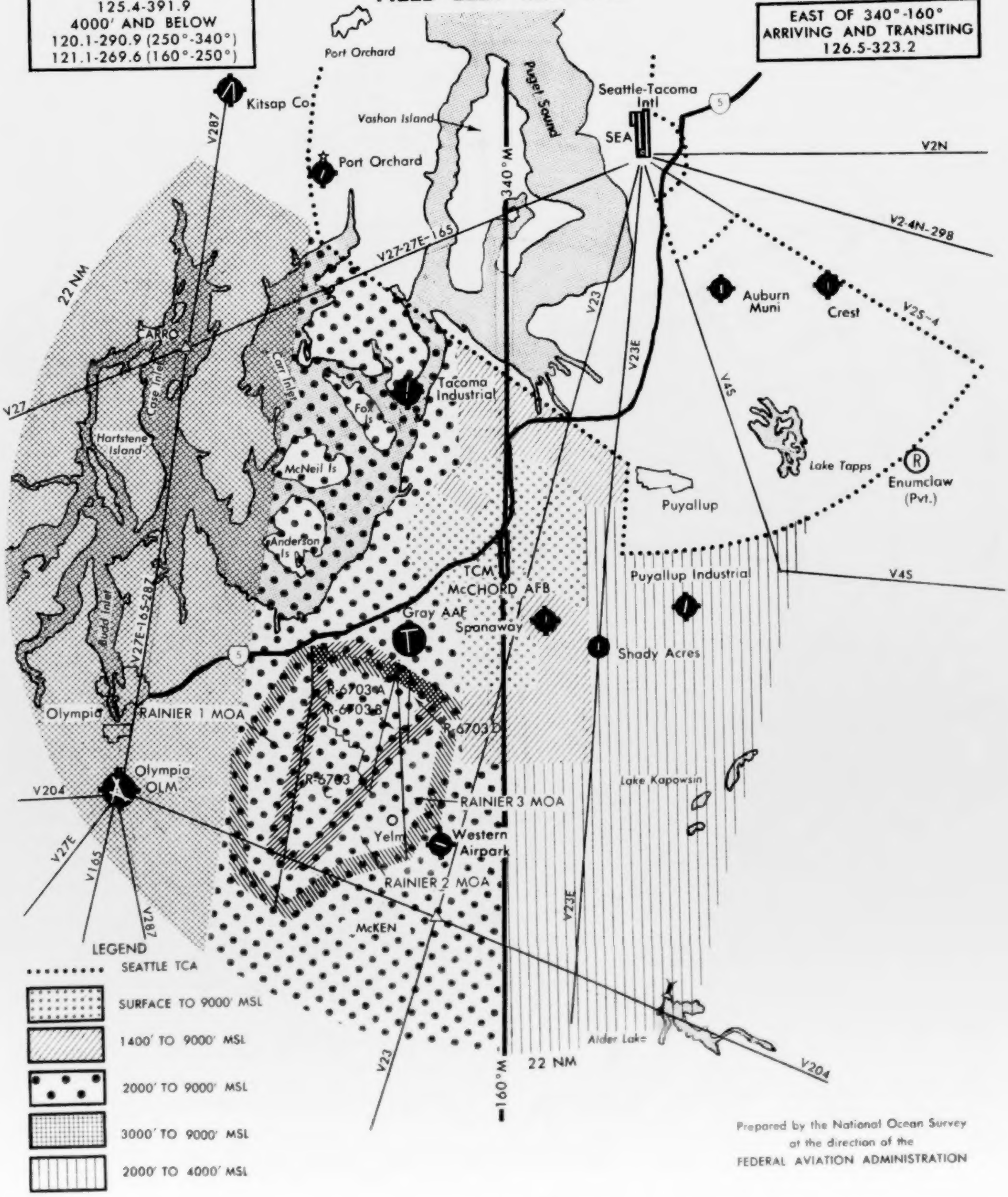
24 JAN 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TACOMA, WASHINGTON
Mc CHORD AFB
FIELD ELEV 322' MSL

WEST OF 160°-340°
ARRIVING AND TRANSITING
ABOVE 4000′
125.4-391.9
4000′ AND BELOW
120.1-290.9 (250°-340°)
121.1-269.6 (160°-250°)

EAST OF 340°-160°
ARRIVING AND TRANSITING
126.5-323.2


Port Orchard
Kitsap Co.
V287
Vashon Island
Puget Sound
Seattle-Tacoma Intl
SEA
5
V2N
Port Orchard
340° M
V27-27E-165
V2-4N-298
22 NM
CARRO
Case Inlet
Carr Inlet
V27
Auburn Muni
Crest
V25-4
V23
V23E
Tacoma Industrial
Fox Is
V4S
Hartstene Island
McNeil Is
Lake Tapps
Enumclaw (Pvt.)
Puyallup
Anderson Is
TCM
McCHORD AFB
Puyallup Industrial
V4S
Gray AAF
Spanaway
Shady Acres
Budd Inlet
V27E-165-287
5
R-6703 A
R-6703 B
R-6703 D
Olympia
RAINIER 1 MOA
R-6703
Lake Kapowsin
V204
Olympia OLM
RAINIER 3 MOA
Yelm
Western Airpark
V27E
V165
RAINIER 2 MOA
V287
V23E
McKEN
Alder Lake
V23
160° M
22 NM
V204

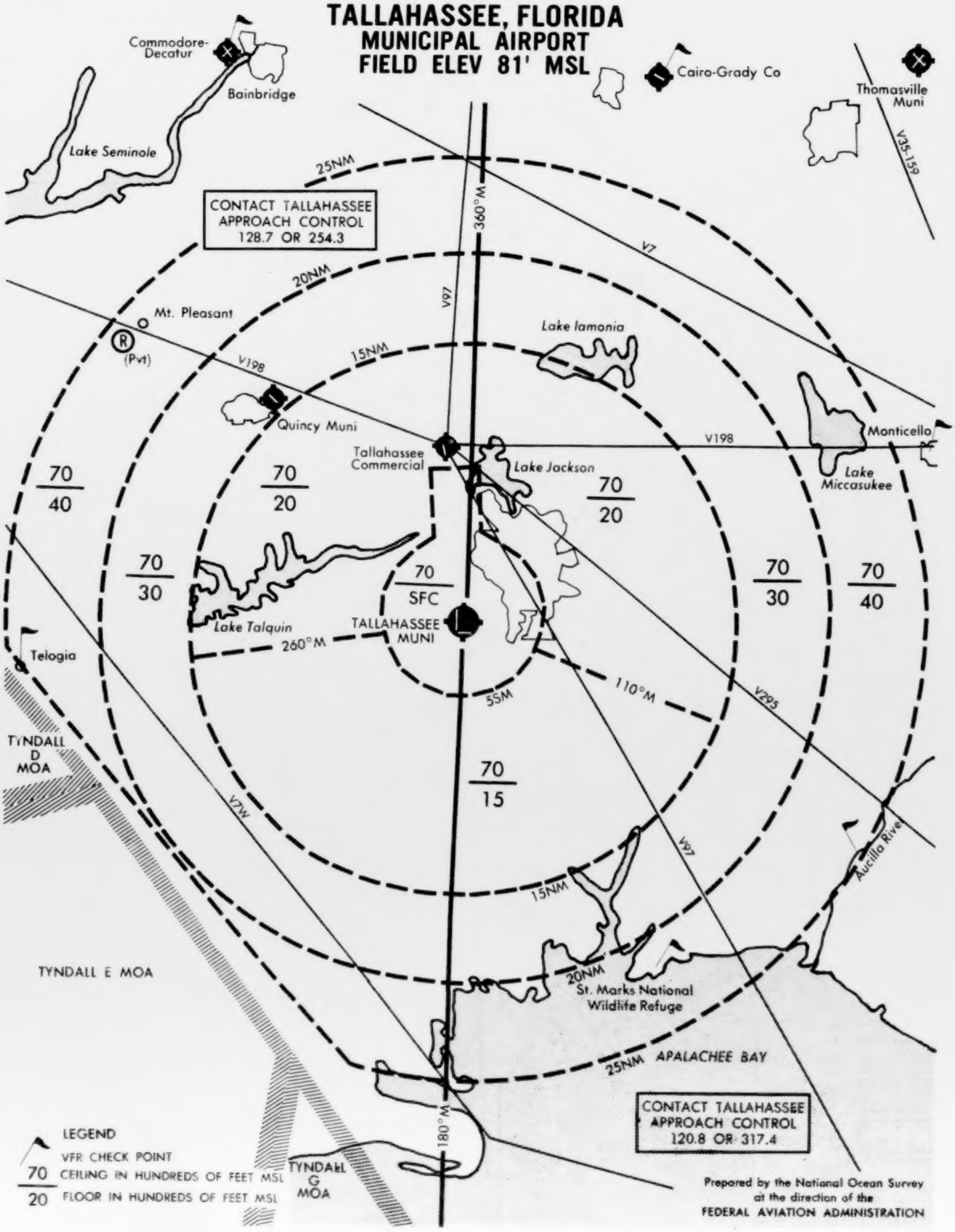
LEGEND

- ⋯⋯ SEATTLE TCA
- ▨ SURFACE TO 9000′ MSL
- ▨ 1400′ TO 9000′ MSL
- ● 2000′ TO 9000′ MSL
- ▦ 3000′ TO 9000′ MSL
- ▥ 2000′ TO 4000′ MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TALLAHASSEE, FLORIDA
MUNICIPAL AIRPORT
FIELD ELEV 81' MSL


Commodore-Decatur
Bainbridge
Lake Seminole
Cairo-Grady Co
Thomasville Muni
V35-159
25NM
CONTACT TALLAHASSEE APPROACH CONTROL 128.7 OR 254.3
360°M
V7
20NM
V97
Mt. Pleasant
(R) (Pvt)
V198
15NM
Lake Iamonia
Quincy Muni
Tallahassee Commercial
V198
Monticello
Lake Jackson
Lake Miccasukee
70/40
70/20
70/20
70/30
70/SFC
70/30
70/40
Lake Talquin
TALLAHASSEE MUNI
260°M
5SM
110°M
V295
Telogia
TYNDALL D MOA
V7W
70/15
V97
Aucilla River
15NM
TYNDALL E MOA
20NM
St. Marks National Wildlife Refuge
25NM
APALACHEE BAY
CONTACT TALLAHASSEE APPROACH CONTROL 120.8 OR 317.4
180°M
TYNDALL G MOA

LEGEND

VFR CHECK POINT

70 CEILING IN HUNDREDS OF FEET MSL

20 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
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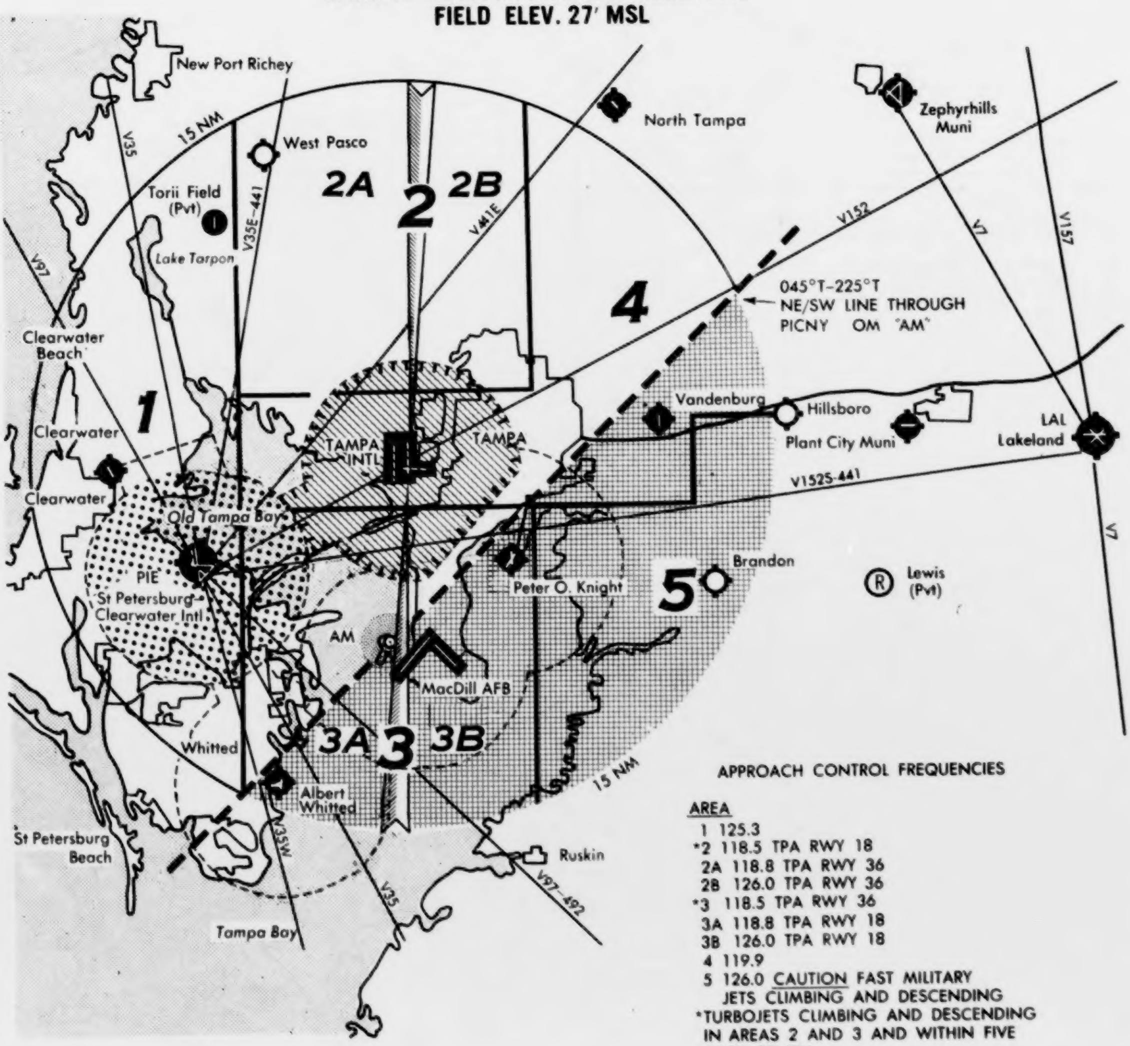
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA
TAMPA INTERNATIONAL AIRPORT
FIELD ELEV. 27′ MSL


New Port Richey
V35
15 NM
West Pasco
North Tampa
Zephyrhills Muni
Torii Field (Pvt)
2A
2
2B
V35E-441
V41E
V152
V7
V157
V97
Lake Tarpon
4
045°T-225°T NE/SW LINE THROUGH PICNY OM "AM"
Clearwater Beach
1
Clearwater
Clearwater
TAMPA INTL
TAMPA
Vandenburg
Hillsboro
Plant City Muni
LAL Lakeland
V152S-441
Old Tampa Bay
PIE
St Petersburg-Clearwater Intl
Peter O. Knight
5
Brandon
Lewis (Pvt)
AM
MacDill AFB
Whitted
3A
3
3B
15 NM
Albert Whitted
St Petersburg Beach
V35W
V35
Ruskin
V97-492
Tampa Bay

APPROACH CONTROL FREQUENCIES

AREA
1 125.3
*2 118.5 TPA RWY 18
2A 118.8 TPA RWY 36
2B 126.0 TPA RWY 36
*3 118.5 TPA RWY 36
3A 118.8 TPA RWY 18
3B 126.0 TPA RWY 18
4 119.9
5 126.0 CAUTION FAST MILITARY JETS CLIMBING AND DESCENDING

*TURBOJETS CLIMBING AND DESCENDING IN AREAS 2 AND 3 AND WITHIN FIVE MILES OF TPA

NOTE–TPA ATIS 126.45 FOR RUNWAY IN USE

CHANGE TRANSPONDER TO CODE 1200 AFTER LEAVING APPROACH CONTROL FREQUENCY

LEGEND

▨	SURFACE TO 6000′ MSL WITHIN CONTROL ZONE
▦	2100′ MSL TO 6000′ MSL
☐	1600′ MSL TO 6000′ MSL
░	3000′ MSL TO 6000′ MSL WITHIN PIE AIRPORT TRAFFIC AREA

VFR REPORTING POINTS

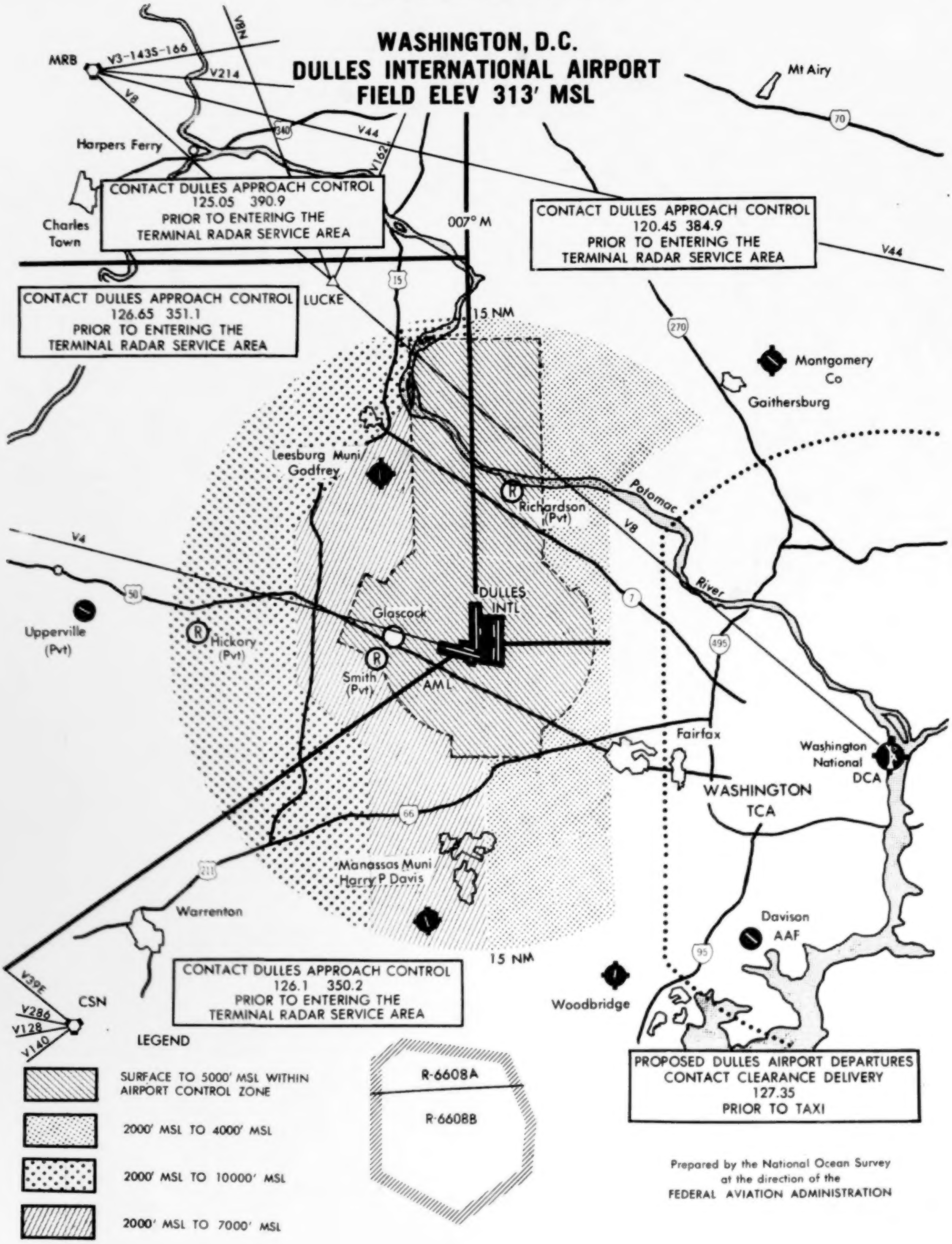
RUSKIN	SSE - 16 NM
PLANT CITY	ENE - 21 NM
TAMPA DOWNS AIRPORT	NE - 17 NM
NEW PORT RICHEY	NW - 19 NM
CLEARWATER BEACH	W - 17 NM
PETERSBURG BEACH	SW - 18 NM

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

21 APR 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON, D.C.
DULLES INTERNATIONAL AIRPORT
FIELD ELEV 313′ MSL


MRB
V3-143S-166
V214
V8
V8N
340
V44
V162
Harpers Ferry
Charles Town
LUCKE
15
007° M
15 NM
Mt Airy
70
V44
270
Montgomery Co
Gaithersburg
Leesburg Muni Godfrey
R
Richardson (Pvt)
Potomac
V8
River
V4
50
Upperville (Pvt)
R
Hickory (Pvt)
Glascock
R
Smith (Pvt)
AML
DULLES INTL
7
495
Fairfax
Washington National DCA
WASHINGTON TCA
66
211
Manassas Muni Harry P Davis
Warrenton
15 NM
Davison AAF
95
Woodbridge
V39E
CSN
V286
V128
V140
R-6608A
R-6608B

CONTACT DULLES APPROACH CONTROL
125.05 390.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT DULLES APPROACH CONTROL
120.45 384.9
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT DULLES APPROACH CONTROL
126.65 351.1
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

CONTACT DULLES APPROACH CONTROL
126.1 350.2
PRIOR TO ENTERING THE
TERMINAL RADAR SERVICE AREA

PROPOSED DULLES AIRPORT DEPARTURES
CONTACT CLEARANCE DELIVERY
127.35
PRIOR TO TAXI

LEGEND

▨	SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
░	2000′ MSL TO 4000′ MSL
⁘	2000′ MSL TO 10000′ MSL
▨	2000′ MSL TO 7000′ MSL

Prepared by the National Ocean Survey
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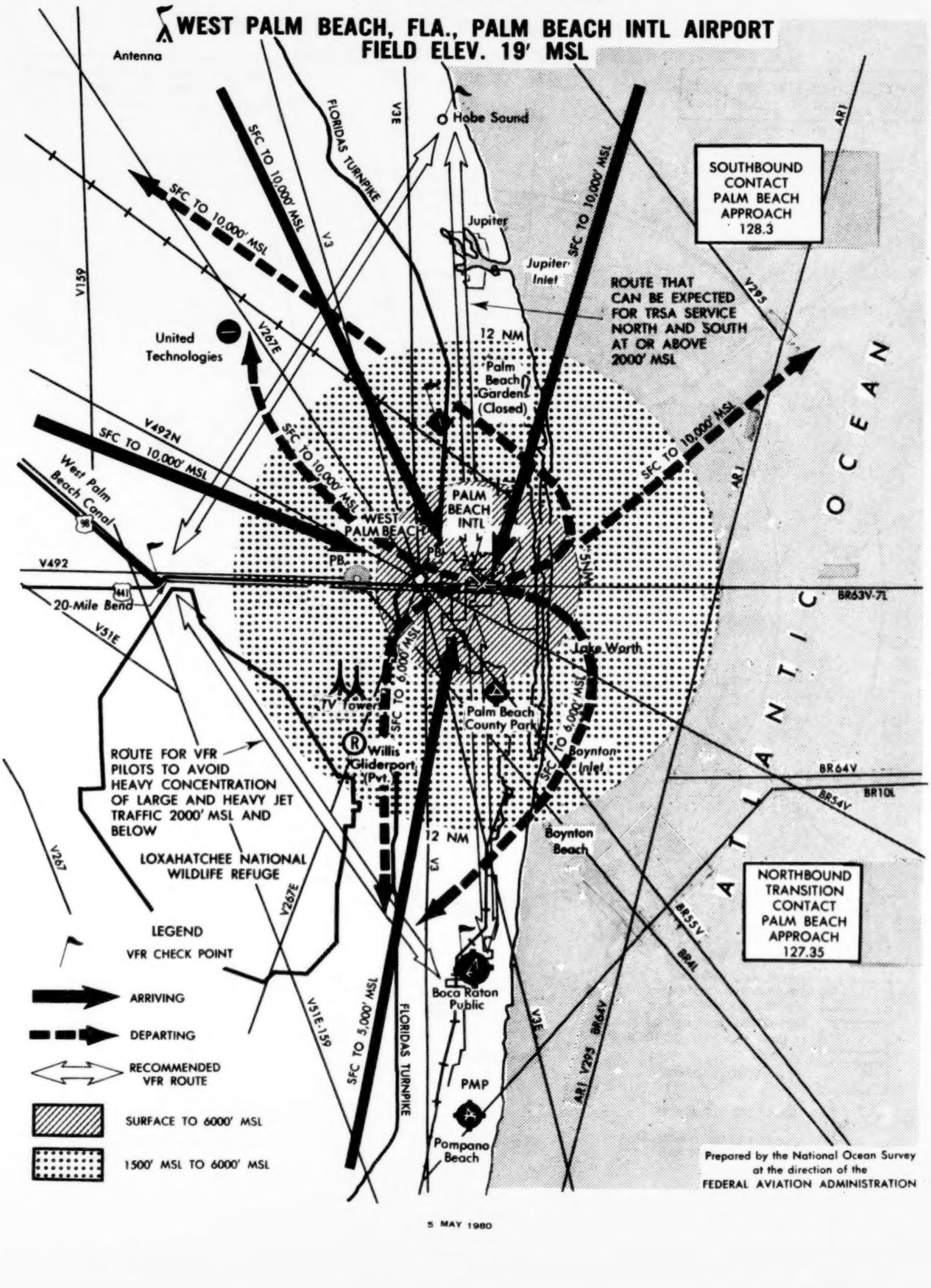
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WEST PALM BEACH, FLA., PALM BEACH INTL AIRPORT
FIELD ELEV. 19′ MSL


Antenna
Hobe Sound
FLORIDAS TURNPIKE
V3E
V3
SFC TO 10,000′ MSL
SFC TO 10,000′ MSL
SFC TO 10,000′ MSL
SFC TO 10,000′ MSL
SFC TO 10,000′ MSL
SFC TO 10,000′ MSL
AR1
SOUTHBOUND CONTACT PALM BEACH APPROACH 128.3
Jupiter
Jupiter Inlet
ROUTE THAT CAN BE EXPECTED FOR TRSA SERVICE NORTH AND SOUTH AT OR ABOVE 2000′ MSL
V295
V159
V267E
United Technologies
12 NM
Palm Beach Gardens (Closed)
ATLANTIC OCEAN
V492N
West Palm Beach Canal
98
PALM BEACH INTL
WEST PALM BEACH
PBI
V492
441
20-Mile Bend
BR63V-7L
V51E
Lake Worth
SFC TO 6,000′ MSL
SFC TO 6,000′ MSL
TV Towers
Palm Beach County Park
Willis Gliderport (Pvt.)
Boynton Inlet
ROUTE FOR VFR PILOTS TO AVOID HEAVY CONCENTRATION OF LARGE AND HEAVY JET TRAFFIC 2000′ MSL AND BELOW
BR64V
BR10L
BR54V
12 NM
Boynton Beach
LOXAHATCHEE NATIONAL WILDLIFE REFUGE
V267
V267E
NORTHBOUND TRANSITION CONTACT PALM BEACH APPROACH 127.35
BR55V
BR4L
LEGEND
VFR CHECK POINT
ARRIVING
DEPARTING
RECOMMENDED VFR ROUTE
SURFACE TO 6000′ MSL
1500′ MSL TO 6000′ MSL
SFC TO 5,000′ MSL
V51E-159
FLORIDAS TURNPIKE
Boca Raton Public
V3E
AR1 V295 BR64V
PMP
Pompano Beach
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

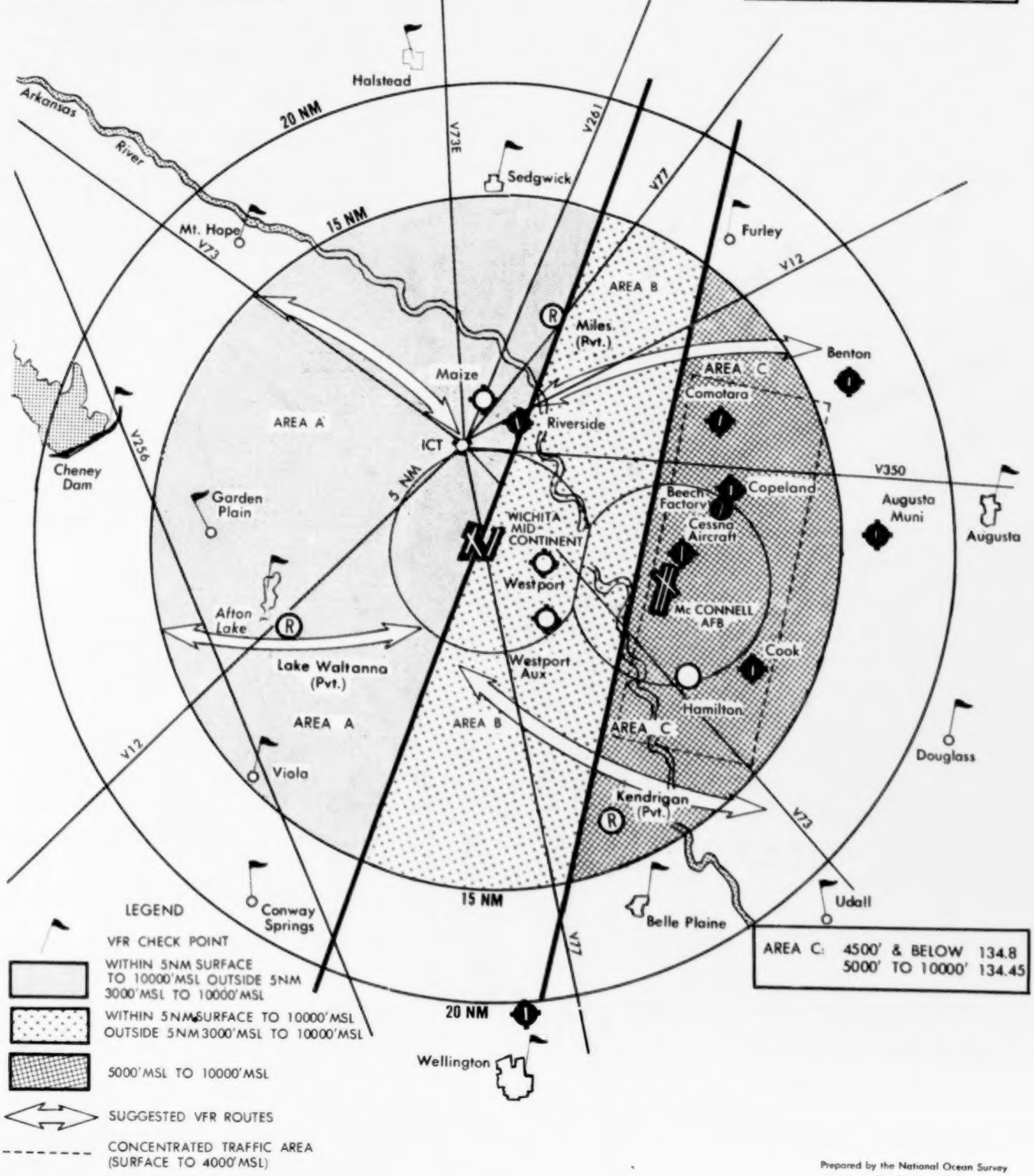
TRSA-60

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS, WICHITA MID-CONTINENT AIRPORT
FIELD ELEV. 1332′ MSL

AREA A: 4500′ & BELOW 126.7
5000′ TO 10000′ 124.75

AREA B: 4500′ & BELOW 120.6
5000′ TO 10000′ 134.45



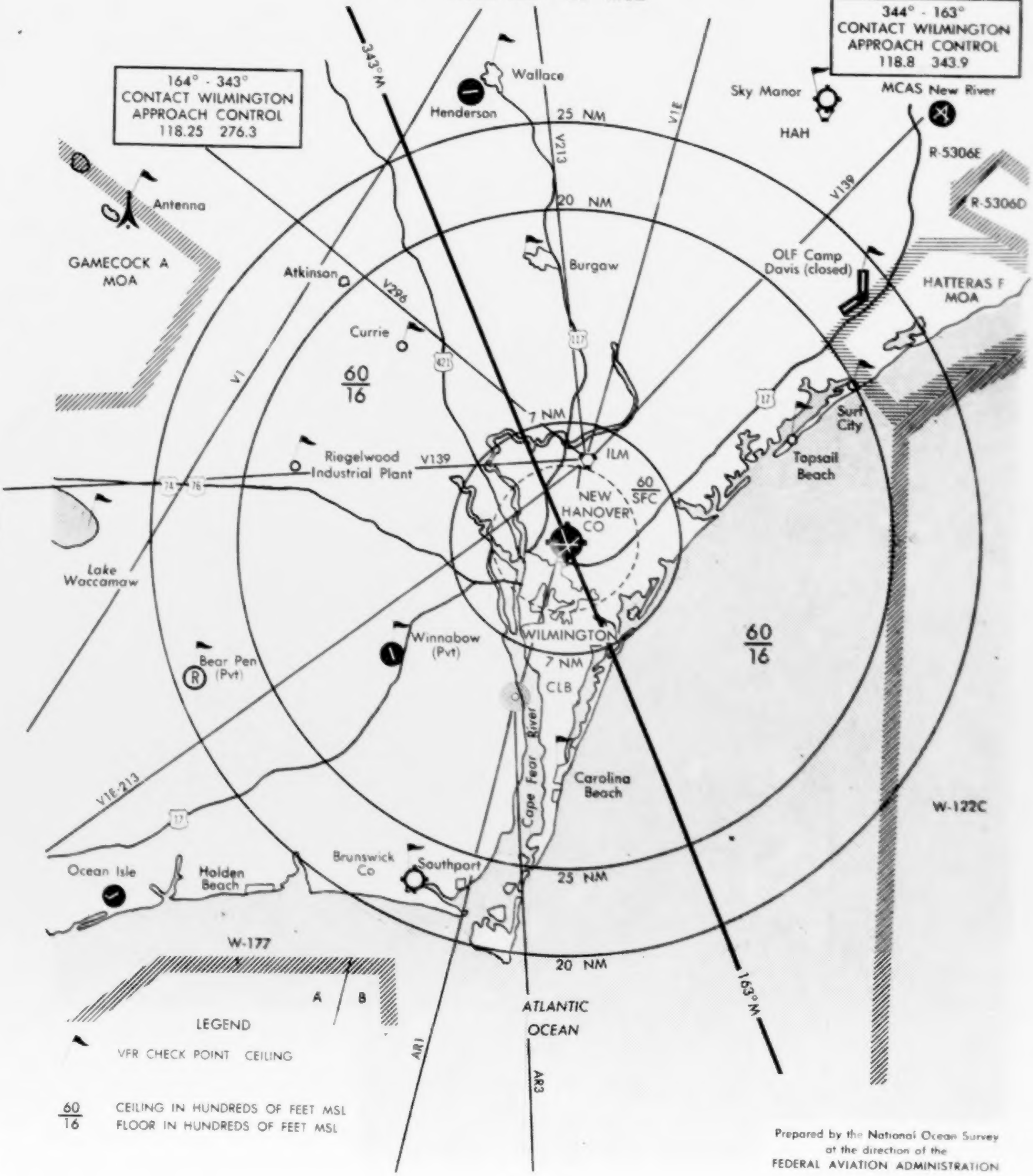
Halstead
Arkansas
River
20 NM
V73E
V261
V77
Sedgwick
15 NM
Mt. Hope
V73
Furley
V12
AREA B
Miles
(Pvt.)
Benton
Maize
AREA C
Comotara
AREA A
Riverside
ICT
Cheney
Dam
V256
5 NM
V350
Copeland
Beech
Factory
Augusta
Muni
Augusta
Garden
Plain
WICHITA
MID-
CONTINENT
Cessna
Aircraft
Westport
Mc CONNELL
AFB
Afton
Lake
Lake Waltanna
(Pvt.)
Cook
Westport
Aux
Hamilton
AREA A
AREA B
AREA C
Douglass
V12
Viola
Kendrigan
(Pvt.)
V73
15 NM
Udall
Conway
Springs
Belle Plaine
V77
AREA C: 4500′ & BELOW 134.8
5000′ TO 10000′ 134.45
20 NM
Wellington
LEGEND
VFR CHECK POINT
WITHIN 5NM SURFACE TO 10000′MSL OUTSIDE 5NM 3000′MSL TO 10000′MSL
WITHIN 5NM SURFACE TO 10000′MSL OUTSIDE 5NM 3000′MSL TO 10000′MSL
5000′MSL TO 10000′MSL
SUGGESTED VFR ROUTES
CONCENTRATED TRAFFIC AREA (SURFACE TO 4000′MSL)

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 MAR 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WILMINGTON, NORTH CAROLINA
NEW HANOVER COUNTY AIRPORT
FIELD ELEV 32' MSL


344° - 163°
CONTACT WILMINGTON
APPROACH CONTROL
118.8 343.9
164° - 343°
CONTACT WILMINGTON
APPROACH CONTROL
118.25 276.3
343°M
163°M
Wallace
Henderson
25 NM
20 NM
7 NM
V213
V1E
V139
V296
V1
V1E-213
AR1
AR3
Sky Manor
HAH
MCAS New River
R-5306E
R-5306D
Antenna
GAMECOCK A
MOA
Atkinson
Burgaw
OLF Camp
Davis (closed)
HATTERAS F
MOA
Currie
421
117
17
74
76
60
16
Riegelwood
Industrial Plant
ILM
NEW
HANOVER
CO
60
SFC
Surf
City
Topsail
Beach
Lake
Waccamaw
WILMINGTON
Winnabow
(Pvt)
Bear Pen
(Pvt)
CLB
Cape Fear River
Carolina
Beach
W-122C
Ocean Isle
Holden
Beach
Brunswick
Co
Southport
W-177
A
B
ATLANTIC
OCEAN

LEGEND

VFR CHECK POINT CEILING

60 / 16 CEILING IN HUNDREDS OF FEET MSL
FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

U.S. GOVERNMENT PRINTING OFFICE : 1980 O - 322-008

Item 431-C-5

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RAC-9

OCTOBER 1980
Next
Issue
January 1981

Graphic Notices and Supplemental Data

328-317

copies 415

contin

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U.S. DEPARTMENT
OF TRANSPORTATION
Federal
Aviation
Administration

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The following comments/corrections are submitted concerning the information contained in the paragraph titled ______________________________

on page __________ of the Graphics Notices and Supplemental Data, dated ____________________.

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FOREWORD

Graphics Notices and Supplemental Data is a publication containing aeronautical data, area notices or navigational route information which is supplemental to other operational aeronautical publications and charts. Data contained in this publication is, generally, not subject to frequent change. Data of a more critical nature, such as the tabulation of North American Routes (NAR) or the graphic area notices (i.e., Terminal Radar Service Areas [TRSA] and Terminal Control Areas [TCA]), which may require revision prior to the next scheduled printing of this publication, will be revised in the publication *Notices to Airmen (Class II).* These revisions will appear only once, so users are advised to tear them out of the *Notices to Airmen* and insert them in this publication until the next issue. *Graphic Notices and Supplemental Data* is a quarterly publication and is available through subscription from the Superintendent of Documents.

Graphic Notices and Supplemental Data also serves as the section RAC–9 in the *United States Aeronautical Information Publication.* The US AIP, issued in one volume, is the basic aeronautical information document published for international use and contains information of a lasting character, essential to international air navigation. It is available in English only and is maintained on a current basis by quarterly amendment service consisting of a checklist, reprinted pages and, in the case of minor amendments, manuscript corrections. This publication is a loose leaf publication made to fit a standard three ring binder. Subscriptions are available through the Superintendent of Documents. A subscription will consist of the basic issue (dated January, 1979) and seven amendments, as they are published. The next basic issue will be in January of 1981.

This manual is complementary to other publications which are available upon separate subscription. These publications are:

Airmen's Information Manual (Basic Flight Information and ATC Procedures)—A publication containing the basic fundamentals required in order to fly in the U.S. NAS. It also contains items of interest to pilots concerning health and medical facts, factors affecting flight safety, a pilot/controller glossary of terms used in the Air Traffic Control System, and information on safety, accident and hazard reporting.

Notices to Airmen (Class-II)—A publication containing current Notices to Airmen (NOTAMs) which are considered essential to the safety of flight as well as supplemental data affecting the other operational publications listed here. It also includes current FDC NOTAMs, which are regulatory in nature, issued to establish restrictions to flight or amend charts or published Instrument Approach Procedures. This publication is issued every 14 days and is available through subscription from the Superintendent of Documents.

Airport/Facility Directory, Alaska Supplement, Pacific Supplement—These publications contain information on airports, communications, navigational aids, instrument landing systems, VOR receiver check points, preferred routes, FSS/Weather Service telephone numbers, Air Route Traffic Control Center (ARTCC) frequencies, part-time control zones, and various other pertinent, special notices essential to air navigation. These publications are available upon subscription from the National Ocean Survey (NOS), Distribution Division (C–44), Riverdale, Maryland 20840.

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration is responsible for insuring the safe and efficient use of the Nation's airspace, by military as well as civil aviation, for fostering civil aeronautics and air commerce in the United States and abroad, and for supporting the requirements of national defense.

The activities required to carry out these responsibilities include: safety regulation; airspace management and the establishment, operation, and maintenance of a civil-military common system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the agency under one particular situation or another may or may not furnish information does not serve as a precedent of the agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Administration to furnish information only when, in the opinion of the agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

TABLE OF CONTENTS

	Page
Area Advisories	ADZY–1
Area Navigation (RNAV) Routes	RNAV–1
Civil Flight Test Areas	CIV–1
North Atlantic Minimum Navigation Requirements	NAT–1
North Atlantic Standardized Air/Ground Messages	NAT–4
North American Routes for North Atlantic Traffic (NAR)	NAT–5
Terminal Area Graphics (listed alphabetically)	TERM–1
Terminal Radar Service Area Graphics (TRSA) (listed alphabetically)	TRSA–1

AREA ADVISORIES

THE FOLLOWING ADVISORIES CONTAIN AERONAUTICAL INFORMATION THAT DOES NOT CONCERN A SPECIFIC AIRPORT OR NAVAID, OR FAILS, FOR SOME OTHER REASON, TO MEET THE CRITERIA FOR INCLUSION INTO OTHER PERMANENT BASE LINE PUBLICATIONS SUCH AS THE *AIRPORT/FACILITY DIRECTORY*. SUCH INFORMATION WILL BE AUTOMATICALLY TRANSFERRED TO THIS PUBLICATION FROM THE *NOTICES TO AIRMEN* (CLASS II) PUBLICATION WHEN THE ORIGINATOR INDICATES THAT THE ADVISORY IS EITHER PERMANENT OR EXPECTED TO REMAIN CURRENT LONG ENOUGH TO WARRANT PUBLICATION HERE. THESE ADVISORIES ARE GROUPED UNDER STATE HEADINGS, AND, WHERE APPROPRIATE, UNDER CITY OR GEOGRAPHIC LOCATIONS. ADVISORIES THAT PERTAIN TO MORE THAN ONE STATE OR REQUIRE A FULL PRINTED PAGE WILL BE INCLUDED UNDER THE *GENERAL* HEADING. THE NUMBER IN PARENTHESIS FOLLOWING EACH ENTRY IS THE MONTH AND YEAR THAT THE ADVISORY WAS ISSUED.

GENERAL

SPECIAL NOTICE—UNICOM:

(A) At the present time there are three UNICOM frequencies, 122.7, 122.8, and 123.0 available for assignment to uncontrolled airports. In the past, no attempt has been made to assign these frequencies in such a way as to reduce frequency congestion between adjacent airports. To reduce frequency congestion, a frequency assignment plan has been developed for 15 areas of the country which have a high concentration of uncontrolled airports. Specifically, these areas are: New York/New Jersey, Washingtion, D.C./Maryland/Virginia, Atlanta, Chicago/Milwaukee, Cleveland, Los Angeles, Denver, Cincinnati/Dayton/Columbus, Seattle, Detroit/Toledo, Indianapolis, Houston, Dallas/Fort Worth, Pittsburgh and Boston. The FCC has requested a significant number of UNICOM operators located in the above areas to change frequencies in accordance with the plan.

(B) Over the next 6 to 12 months there will be numerous UNICOM frequency changes. During this transition period directory/supplements or appropriate charts may not accurately reflect UNICOM frequency assignments at uncontrolled airports. Pilots destined for one of the areas noted above are urged to verify the UNICOM frequency in use during preflight briefings or with the FSS associated with the airport destination. (3/80)

ARIZONA

THE GRAND CANYON CAVERNS AREA: Quarry located 3 miles west-southwest of Grand Canyon Caverns Landing Strip. Aircraft are cautioned to avoid this area during daylight hours, if necessary to fly over the area maintain a minimum altitude of 4000 feet AGL due to possible damage from flying rocks or turbulence caused by blasting. (3/78)

GRAND CANYON AND PETRIFIED FOREST NATIONAL PARKS: All pilots are requested to avoid flying below the canyon rim and to maintain a distance 1500 feet above and horizontally from all scenic overlooks, parks, and trails. (10/74)

CALIFORNIA

SALINAS RIVER AND OCEAN SHORELINE: Avoid flying below 1000 feet over a 400 acre Wildlife Refuge along the south side of the mouth of the Salinas River and ocean shoreline eastward. (1/76)

LAKE HUGHES VORTAC: All pilots are requested to avoid flying below 3000 feet AGL over or near the California Condor nesting area located within 10 miles west (180°-360°) of the Lake Hughes VORTAC. (10/80)

DISTRICT OF COLUMBIA

WASHINGTON NATIONAL AIRPORT: Turbojet policy except under emergency conditions and subject to observance of noise abatement procedures, only those turbojet aircraft meeting the following criteria can be accommodated: A. Approved types of turbojet aircraft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operation, (2) Air carrier (including supplemental air carriers) and commercial operator training charter, or

AREA ADVISORIES

familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Saulnier 760 (4) Jet Commander (Aero Commander) (5) Learjet (6) Hawker Siddley DH-125 (7) Hansa Jet HFB 320 (8) Fan Jet Falcon (9) Caravelle (10) DC-9 series 10, 30 and 50 (11) BAC-111 (12) Boeing 727 series thru 200 approved under controlled conditions, (13) Boeing 737 series 100 and 200 (14) Gulfstream II (15) Cessna Model 500 Citation C Fokker F-28. Turbojet aircraft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet aircraft described in paragraph B (9) through (13) may not be operated into or out of airport on a flight segment of more than 650 statute miles except for non stop flights of less than 1000 miles operating to or from the following cities: Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla. Runway 15 available all jet takeoffs. No runup in position prior to takeoff. Rolling takeoffs only. In the interest of noise abatement, all non-scheduled turbojet operators are requested not to land at or takeoff from Washington National Airport 2300-0700 local time. (10/74)

WASHINGTON ARTCC: Enroute radar service, VFR advisory service and merging target service below 10000 feet MSL available only to transponder equipped aircraft in Roanoke, Lynchburg, Charlottesville, Danville and Elkins. (2/78)

WASHINGTON NATIONAL AIRPORT: Lead-in light system located at upstream side center of Memorial Bridge angled to intercept altitude of 900 feet MSL over Key Bridge. (8/78)

WASHINGTON NATIONAL ATCT: LOCAL FLOW TRAFFIC MANAGEMENT—TURBOJET ARRIVALS: Washington National Tower, in conjunction with the Washington ARTCC, has implemented a metering plan designed to minimize low altitude holding, reduce radar vectors at speeds requiring the extension of flaps and to provide for an orderly flow of traffic to the final approach course. Dependent upon the airport acceptance rate, in-trail spacing between successive arrivals may necessitate using speed adjustments prior to reaching the Washington Terminal Area. Descent, under most conditions, will be from arrival fixes established 30 to 36 miles from the runway end. Advance notice as to where to expect descent and when to expect base leg should be given. It is imperative that pilots control their descent at a uniform rate to preclude intermediate altitude restrictions. (Procedures are based on a near idle thrust, 300 feet per mile descent in still air conditions.) (11/78)

FLORIDA

MIAMI: Balloon flights will be made to 1500 feet AGL sunrise-sunset in an area 5 miles north of the Miami VORTAC, about 6 miles south/southwest of the intersection of US highway and State highway 84. (3/78)

Aerobatic practice area BSY VOR 252 radial 22NM SFC to 1500 Ft. For information contact Miami IFSS. (10/80)

GEORGIA

ATLANTA TOWER SPECIAL NOTICE: Low altitude airway structure in proximity of the William B. Hartsfield Atlanta International Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid Heavy Concentration of high performance and wide-bodied aircraft, pilots should file airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local time. (6/78)

ILLINOIS

CHICAGO, O'HARE INTL AIRPORT: Surface wind information provided by O'Hare Tower directly to landing aircraft, for all runways except 18-36, will be derived from wind sensor equipment near each runway threshold rather than from the centerfield wind sensor equipment; except that the center field source will be used during outages of threshold sensors. Surface wind information in weather reports, ATIS broadcasts and given directly to departing aircraft will continue to be from the centerfield source. (9/79)

CHICAGO/WEST CHICAGO, DUPAGE COUNTY AIRPORT: Traffic advisory, high volume of concentrated VFR traffic west of airport; aircraft approaching this area should be alert for north-south VFR traffic circumnavigating O'Hare TCA and not in radio contact with Dupage tower or Chicago ARTCC. (9/78)

KENTUCKY

COVINGTON GREATER CINCINNATI AIRPORT: Runway Alignment Indicator System Experimental (RAISE) located extended center line runway 18, 8630 feet north of threshold. System appears as an inverted T with 5 light stations forming the cross of the T, and 2 additional light stations forming the leg of the T. All lights are red and system operates in steady burning mode. Minimum crossing height 1300 feet MSL for visual approaches from north. ILS Glide Path altitude is 1300 feet MSL over RAISE. (10/74)

AREA ADVISORIES

MAINE

MOSCOW/CARATUNK, SOMERSET COUNTY: The U.S. Air Force will be operating an experimental radar system transmitter located at latitude 45°10′25″N 69°51′40″ West on an intermittent basis (approximately 40 hours per week) until June 1981. The transmitter will be operating on FM/CW frequencies between 6.75–21.85 mhz. The transmitted energy will create an area hazardous to aircraft carrying electro-explosive devices. The area will also be hazardous to airborne high frequency radios. All aircraft are cautioned to avoid the area within 2 nautical miles radius of the antenna site below an altitude of 6500 feet MSL. Aircraft, in particular, should avoid penetrating the airspace beginning at the antenna site and extending 1 mile along the boresite of 46.5 degrees true at an altitude of 5000 feet and below within ½ mile of either side of the boresite. (1/80)

MASSACHUSETTS

SPECIAL NOTICE: Weather warning signs installed airport ramp areas at number Cape Cod and bordering Island locations. Signs function with associated flashing lights during periods where IFR or other hazardous weather is current or forecast. Sign and light system operations at Chatham, Martha's Vineyard, Hyannis, New Bedford, Plymouth, and Nantucket during hours airport attended or tower open. (9/79)

BOURNE: Aircraft operating below 2000 ft and within 3 miles of Pave Paws radar site located in Restricted Area 4101 may experience momentary erratic operation of cockpit instruments or navigational equipment. Pilots are encouraged to submit reports of such occurrences to nearest FAA Air Traffic Facility. (5/79)

BOSTON: To avoid the concentration of aircraft arriving and departing Boston, pilots requesting IFR flight at and below altitudes 14,000 feet MSL should file for airways beyond 40 NM from Boston VORTAC between the hours of 0800–2100 local. Traffic to/ from Maine and Cape may file V167.

MINNESOTA

HIBBING: Extensive open pit mine blasting operations being conducted from 12 nautical miles southwest to 48 northeast of Hibbing. Possible debris to 4000 feet. Contact Hibbing FSS for blasting schedule. (5/76)

NEW JERSEY

NEW YORK ARTCC: The New York Air Route Traffic Control Center, in concert with the Philadelphia, Atlantic City and McGuire AFB Approach Control Facilities, has developed restricted airspace procedures in support of an intensive RCA/US Navy test program. The area concerned is east of a line from SBY (Salsbury VOR) to PNE (North Philadelphia) VOR and south of line from the PNE VOR to the MANTA intersection on V139 and primarily in the vicinity of ACY (Atlantic City, NJ), McGuire AFB, NAS Lakehurst, and Philadelphia. The Program will continue for an extended period. Discrete times and altitudes will be used in the flying test profiles to have as little impact as possible on normal traffic flow. Appropriate daily NOTAMs will be issued concerning airspace restrictions. Some slight delays to IFR traffic may be encountered. New York Center Flow Control Printer Information will also be issued with restrictions if necessary, however, delays if any will be kept to the minimum. (8/78)

NEW MEXICO

FARMINGTON: Blasting daily 0900–1700 between the Farmington VOR 120 degree to the 330 degree radials beyond 10 DME miles. Caution should be exercised if operating below 500 feet AGL near drag lines or drilling rigs. (6/78)

ALBUQUERQUE ARTCC: VFR radar advisory service and merging target service available to transponder equipped aircraft above 10,000 feet MSL from a point 75 miles south of El Paso, Texas, to the U. S. /Mexico border. (10/80)

NEW YORK

NIAGARA FALLS: Recommended VFR Flight Procedures in the "Niagara Scenic Falls" Area. (A) Due to the high concentration of Sightseeing Flights in the Niagara Falls Area and in the interest of Flight safety, the following procedures are recommended:

(1) A right hand circuit pattern with north end right turn area, south of the *railroad* bridge across the Niagara Gorge—and southern right turn area near the town of Chippewa, (south shore of Niagara River).

(2) On joining the right hand pattern, pilots should broadcast their intentions on frequency 122.9 MHz, giving their cruising altitude and point of entry: i.e., northbound or southbound, and monitor the frequency while in the pattern.

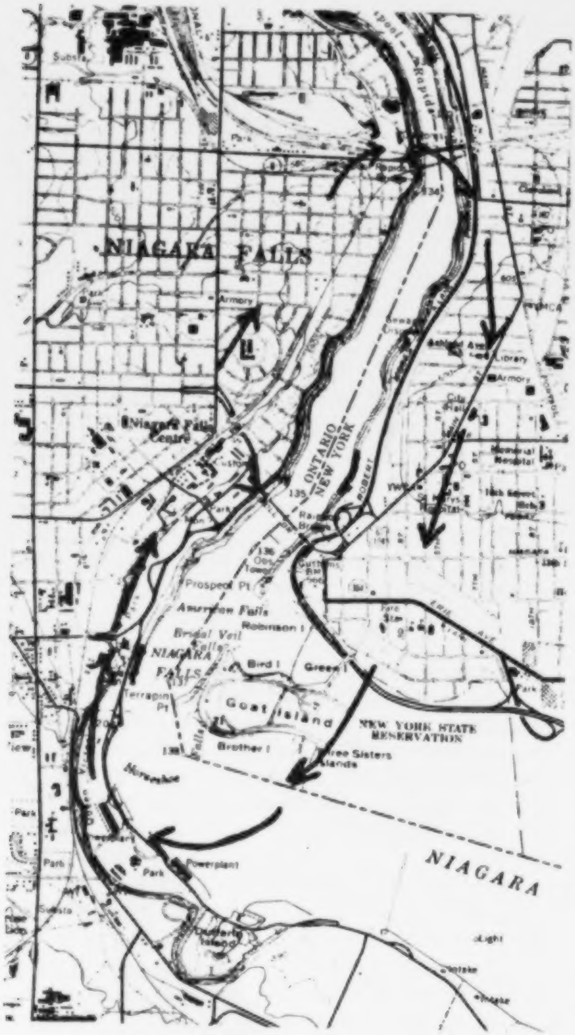
(3) It is recommended that (a) helicopters operate in the pattern between 2000 and 2200 ft. AGL. (b) fixed wing aircraft operate in the pattern between 2500 and 3000 ft. AGL. (c) turbo prop/jet and aircraft with cruise speeds of 150 kts.+, operate in this pattern above 3200 ft. AGL.

Although these procedures are intended to segregate traffic, VFR rules of "See and Be Seen" and good airmanship practices will prevail.

AREA ADVISORIES

(B) IMPORTANT NOTE: Obtain current altimeter setting prior to joining the pattern through either Niagara Falls tower frequency, or St. Catharines tower frequency. *All Pilots* are cautioned that the areas on both sides of the Niagara Gorge between "The Whirlpool" and "Horseshoe Falls" are extremely noise sensitive. Maintain at least 2200 ft. AGL over this area prior to joining the pattern. (3/80)

The provision of enroute primary radar services is not available in the Boston ARTCC Watertown NY area at 12,000 feet and below, Rockdale/Utica NY areas at 11,000 feet and below, Delancey NY area at 7,000 feet and below, and in the Syracuse/Georgetown NY areas at all altitudes. (7/80)


NIAGARA FALLS
Rapids
Armory
Niagara Falls Centre
ONTARIO
NEW YORK
Library
Armory
City Hall
Memorial Hospital
Prospect Pt
American Falls
Robinson I
Bridal Veil Falls
NIAGARA FALLS
Bird I
Green I
Terrapin Pt
Goat Island
NEW YORK STATE RESERVATION
Brother I
Three Sisters Islands
Horseshoe
Powerplant
Park
NIAGARA
Light

OREGON

BIRD HAZARDS: Heavy concentration of migratory and wintering flocks of large waterfowl throughout central Oregon from the Washington to California borders annually November to May. Caution advised at all airports or while transiting area.

TEXAS

SAN ANTONIO: April to October large concentrations of bats are observed in the vicinity of Bracken Cave located 5.5 miles east of SAT VORTAC. Most activity is observed near sunset and sunrise at altitudes up to 10000 feet.

UTAH

BINGHAM CANYON: Unmarked cables and pole lines suspended across canyon and in vicinity of the open pit mine. (10/74)

FLAMING GORGE DAM SITE: Cables and power lines suspended from 2 towers on west side to one tower on east side of canyon across Green River approximately 100 feet higher than canyon rim. (10/74)

VIRGINIA

SHENANDOAH VALLEY AIRPORT—AUTOMATIC WEATHER SYSTEM OPERATIONAL: (A) The first automatic weather observing and reporting system to meet FAA performance and installation requirements is now operational at Shenandoah Valley Airport (SHD), Staunton, Virginia.

(B) The "Weather-Check V," designed and produced by Artais Incorporated of Columbus, Ohio, received FAA system approval in August and installation approval at SHD in January. The system consists of sensors which constantly measure temperature, dewpoint, wind and pressure. These elements, as well as manually entered NOTAM data, are processed into an automatic voice which is transmitted every minute over the Staut NDB, "SH" on 375 khz (and also available by telephone, area code 703, 234-9345). The system thus continually reports real-time weather data directly to the pilot.

(C) The following is an example of the voice message: "Shenandoah Valley Airport, time one two three four Greenwich, temperature five two, dewpoint four seven, wind two six zero at one five gusting two four, altimeter two nine nine seven, NOTAMs missing." If any data is either unavailable or invalid (as determined by the machine's internal verification processes), it is reported as "missing."

(D) "Weather-Check V" information received over the SH NDB may be used for VFR and IFR operations. When indicated on the revised instrument approach charts, the altimeter setting may be used for the conduct

AREA ADVISORIES

of actual IFR approaches to the airport. (Should the altimeter setting be not received and/or reported "missing," the designated remote altimeter source and associated higher approach minimums would apply.)

(E) Throughout 1980, additional Weather-Check sites and additional weather elements (such as visibility) are expected. (3/80)

WASHINGTON

ARLINGTON AIRPORT: Unmarked/unlighted horizontal and vertical cables blocking canyon from 3217 feet MSL to canyon floor located 10 nautical miles east northeast airport. Six structures on each side of canyon are marked and lighted. (9/77)

COLUMBIA RIVER BASIN: Bird Hazard—Heavy concentration of migratory and wintering flocks of large waterfowl throughout the Columbia River Basin from the Canadian to Oregon borders annually November to May. Caution advised to all airports or while transiting area.

HANFORD: Numerous unmarked/unlighted tall structures located within 12 nautical miles of radius of Hanford, Washington. Pilots are advised to maintain at least 1000 feet above surface in this area. (11/77)

WISHRAM: Unmarked powerlines from north shore of Columbia River to Millers Island 2 nautical miles east of Wishram Washington, 250 feet above the water 712 feet MSL. (2/78)

WYOMING

SHERIDAN: Coal mine blasting surface to 1000 feet AGL 27 nautical miles northeast of Sheridan. Blasting will continue indefinitely. (10/74)

YELLOWSTONE NATIONAL PARKS: Due to increasing low level flights over national parks, pilots are requested to maintain 2000 feet AGL when transiting Yellowstone National Parks unless aircraft capability is exceeded. (9/72)

AREA NAVIGATION ROUTES (RNAV)

Area navigation systems permit navigation via a selected course to a predefined point without having to fly directly toward or away from a navigational aid. Typical of such systems are doppler radar, inertial and course line computers.

Introduction of the area navigation capability into the National Airspace System provides a means of overcoming many of the constraints of the VOR system. Elimination of the requirement to fly along radials that lead directly to or from the ground station makes it possible to design routes and procedures that better facilitate the movement of traffic.

Guidelines for the implementation of area navigation within the National Airspace System were issued in the form of Advisory Circular 90-45A on 2 February 1975. Advisory Circular 90-45A contains standards and methods for obtaining approval for use of area navigation equipment in IFR operations. It also contains air traffic control procedures applicable to approved area navigation equipment.

Since the VOR system forms the basis for the existing airway and air traffic control systems, area navigation route definitions and air traffic control clearances will be in terms of, and referenced to, VOR ground stations. However, latitude/longitude descriptions of fixes forming area navigation routes are provided to facilitate the use of airborne systems that are not dependent on VOR input signals.

Area navigation routes are numbered in a manner similar to VOR airways and jet routes. The suffix "R" identifies the route as an area navigation route. When filing an IFR flight plan containing an area navigation route, the route number may be filed in the same manner as a VOR airway number. The filed route should clearly define the intended route during transition from the VOR structure to the area navigation structure.

Area navigation route numbering will be as follows:

(1) **Series 700 (low) and 800, 900 (high) routes**—Routes designated in Parts 71 and 75. Routes expected to be in frequent use by more than one user and published on appropriate U.S. Government Charts. MEAs will be published in FAR 95.

(2) Series 500 (low) and 600 (high) routes—Routes published in the Graphic Notices and Supplemental Data. Routes planned for more than one user but their expected usage does not justify Government charting. MEA's when not published in FAR 95 and the Graphic Notices and Supplemental Data, will be provided by ATC.

(3) Series 300 (low) and 400 (high) routes—Routes established primarily for one user. Not carried on Government charts. MEAs will be periodically published in the listing of non-95 routes.

The routes contained herein are those of the 500 and 600 Series.

Each area navigation route listed is based on a centerline which extends between fixes, described by reference to VOR/DME, called waypoints, specified for that route. Each waypoint is listed by geographical name, followed by the VOR/DME fix description in the format: VOR STATION RADIAL/DME MILEAGE (example POM 033/010). Also included are the track to be flown (Mag track), the VOR changeover point (COP, with "MP" indicating Midpoint) the distance (DIST) between waypoints, and the latitude/longitude description.

HIGH ALTITUDE AREA NAVIGATION ROUTE (UNCHARTED)

WAYPOINT NAME	DESCRIPTION VOR/DME	GEOGRAPHICAL COORDINATES
	J620R	
	Hemlo (Pacific Ocean) to Dayah, Oregon	
Hemlo	ONP 216.0/137.0	43°18′08″,126°40′49″
MAG TRACK: 047.4/229.8		DIST: 158
COP: NOT REQUIRED		MEA: 18000
		MAA: 45000
Eugene	ONP 105.8/45.2	44°07′16″,123°13′18″
MAG TRACK: 056.2/237.7		DIST: 95
MAG TRACK: 059.1/240.2		DIST: 70
COP: 95 E EUGENE		MEA: 18000
		MAA: 45000
Dayah	PD1 178.3/69.4	44°33′58″,119°26′45″

SPECIAL OPERATIONS

CIVIL FLIGHT TEST AREAS

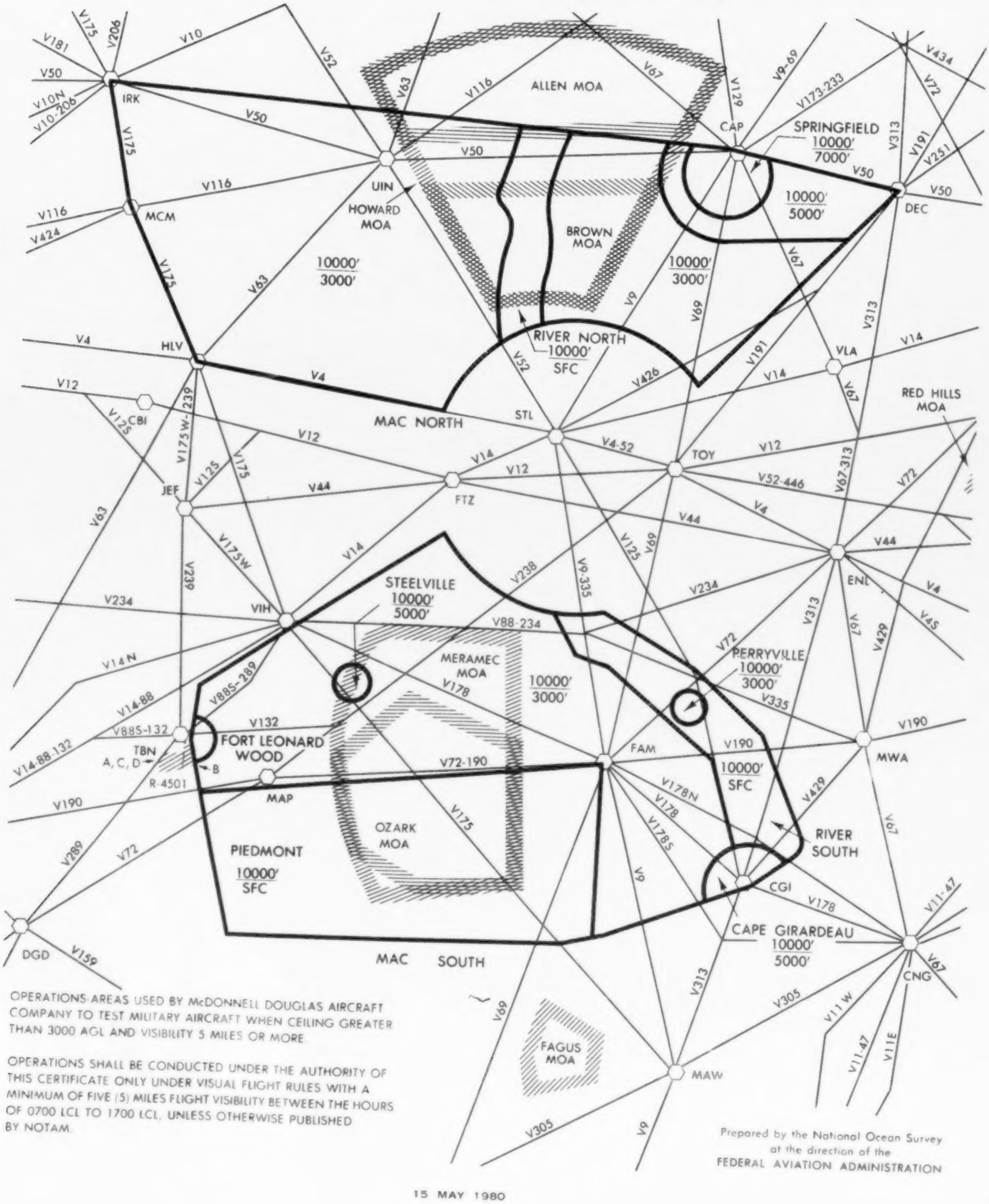
The graphics on the following pages depict areas that have been designated as flight test areas for civil aircraft manufacturers. These flight tests shall be conducted under the following conditions.

Operations—Conducted by military jet type aircraft at indicated airspeeds above 250 knots when ceiling greater than 3,000 feet AGL and visibility five (5) miles or more.

Altitudes—10,000 feet to surface.

Hours of Operations—Check graphics or Flight Service Station for hours of operation.

MCDONNELL AIRCRAFT COMPANY
MCAIR LOW ALTITUDE FLYING AREAS


ALLEN MOA
HOWARD MOA
BROWN MOA
IRK
MCM
UIN
CAP
DEC
HLV
STL
VLA
CBI
JEF
FTZ
TOY
ENL
VIH
TBN
A, C, D
B
R-4501
MAP
FAM
MWA
CGI
CNG
DGD
MAW
SPRINGFIELD
10000'
7000'
10000'
5000'
10000'
3000'
10000'
3000'
RIVER NORTH
10000'
SFC
MAC NORTH
RED HILLS MOA
STEELVILLE
10000'
5000'
MERAMEC MOA
10000'
3000'
PERRYVILLE
10000'
3000'
FORT LEONARD WOOD
10000'
SFC
OZARK MOA
PIEDMONT
10000'
SFC
RIVER SOUTH
CAPE GIRARDEAU
10000'
5000'
MAC SOUTH
FAGUS MOA
V175
V206
V181
V50
V10N
V10-206
V10
V52
V63
V116
V67
V129
V9-69
V173-233
V434
V72
V313
V191
V251
V424
V9
V69
V4
V12
V125
V175W-239
V14
V4-52
V52-446
V67-313
V44
V239
V175W
V238
V9-335
V234
V88-234
V14N
V14-88
V885-289
V178
V885-132
V132
V14-88-132
V72-190
V190
V289
V178N
V178S
V429
V335
V45
V159
V305
V11-47
V11W
V11E

OPERATIONS AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE.

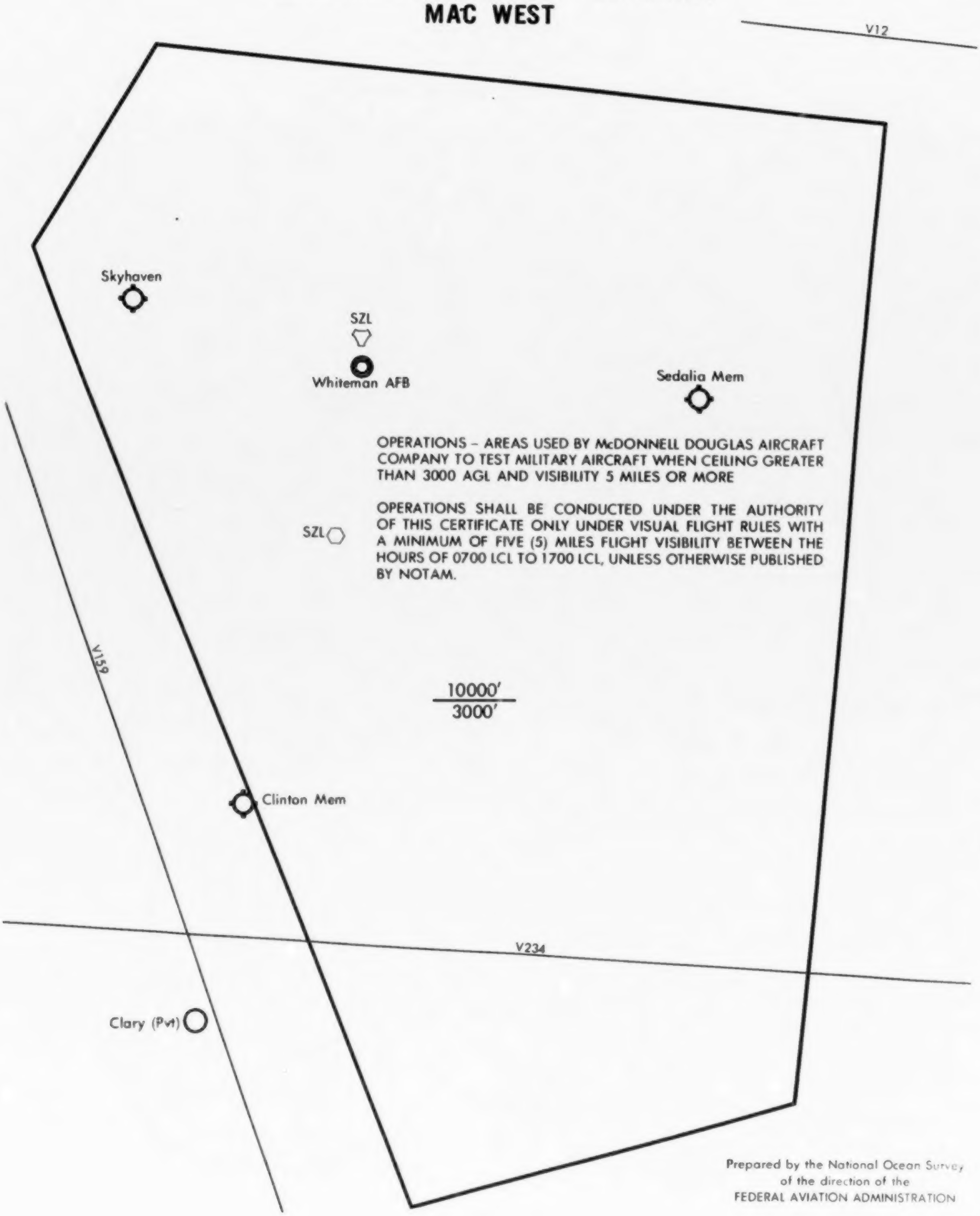
OPERATIONS SHALL BE CONDUCTED UNDER THE AUTHORITY OF THIS CERTIFICATE ONLY UNDER VISUAL FLIGHT RULES WITH A MINIMUM OF FIVE (5) MILES FLIGHT VISIBILITY BETWEEN THE HOURS OF 0700 LCL TO 1700 LCL, UNLESS OTHERWISE PUBLISHED BY NOTAM.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

MCDONNELL AIRCRAFT COMPANY

MAC WEST


V12
Skyhaven
SZL
Whiteman AFB
Sedalia Mem
SZL
V159
10000′
3000′
Clinton Mem
V234
Clary (Pvt)

OPERATIONS – AREAS USED BY McDONNELL DOUGLAS AIRCRAFT COMPANY TO TEST MILITARY AIRCRAFT WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE

OPERATIONS SHALL BE CONDUCTED UNDER THE AUTHORITY OF THIS CERTIFICATE ONLY UNDER VISUAL FLIGHT RULES WITH A MINIMUM OF FIVE (5) MILES FLIGHT VISIBILITY BETWEEN THE HOURS OF 0700 LCL TO 1700 LCL, UNLESS OTHERWISE PUBLISHED BY NOTAM.

Prepared by the National Ocean Survey
of the direction of the
FEDERAL AVIATION ADMINISTRATION

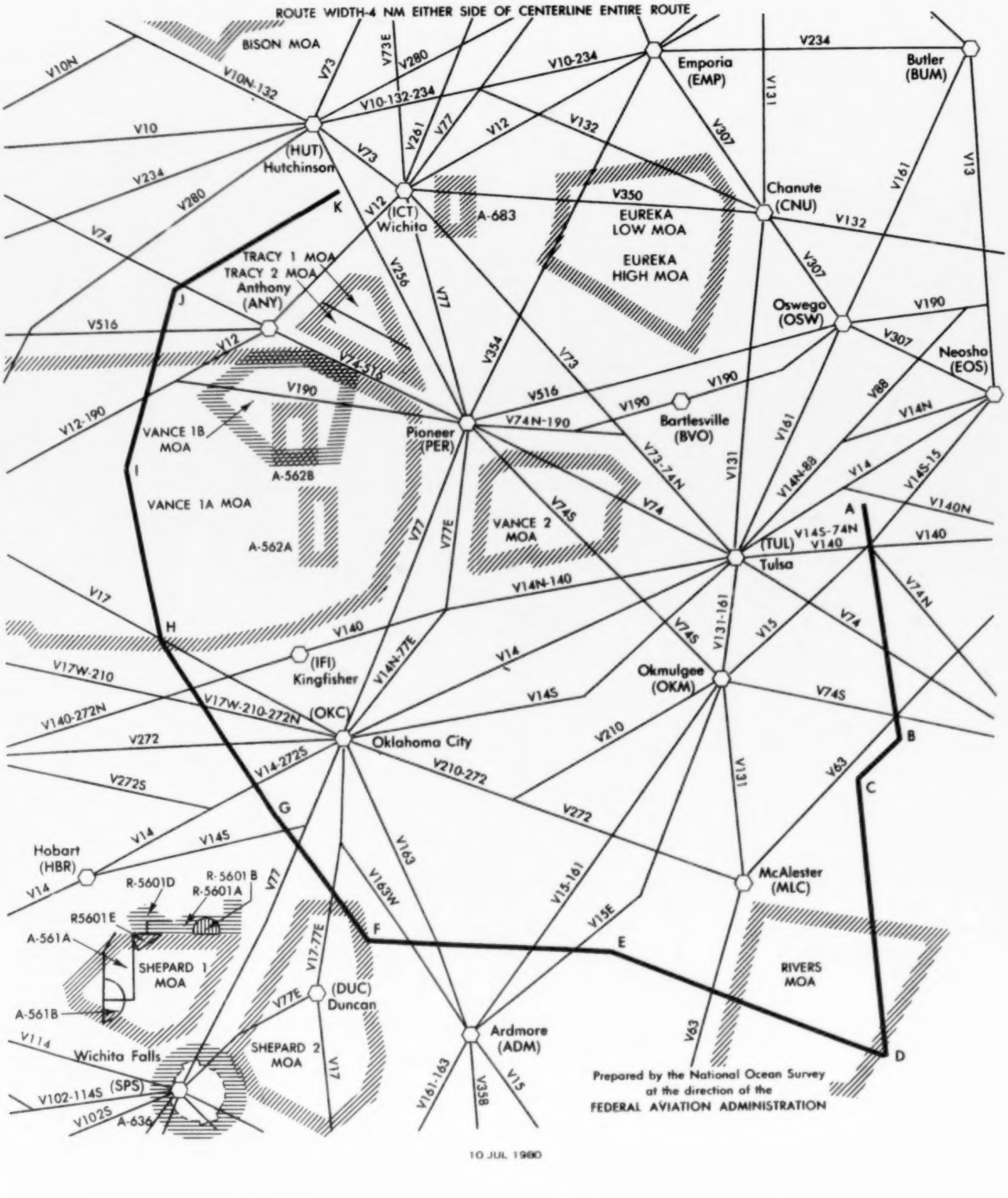
15 MAY 1980

BOEING LOW LEVEL ROUTE #1

HOURS OF OPERATION-CONTINUOUS

OPERATIONS-CONDUCTED BY B52
AIRCRAFT IN EXCESS OF 250 KTS WHEN
CEILING GREATER THAN 3000 AGL AND
VISIBILITY 5 MILES OR MORE.

ROUTE WIDTH-4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE


BISON MOA
V10N
V10N-132
V73
V73E
V280
V10-234
V10-132-234
Emporia
(EMP)
V234
Butler
(BUM)
V131
V10
(HUT)
Hutchinson
V73
V261
V77
V12
V132
V307
V13
V161
V234
V280
K
(ICT)
Wichita
A-683
V350
EUREKA
LOW MOA
EUREKA
HIGH MOA
Chanute
(CNU)
V132
V74
V12
TRACY 1 MOA
TRACY 2 MOA
Anthony
(ANY)
J
V256
V77
V307
Oswego
(OSW)
V190
V516
V12
V74-516
V354
V73
V307
Neosho
(EOS)
V12-190
V190
V516
V190
V88
V14N
VANCE 1B
MOA
A-562B
Pioneer
(PER)
V74N-190
Bartlesville
(BVO)
V161
V14N-88
V14
V14S-15
I
VANCE 1A MOA
A-562A
V77
V77E
VANCE 2
MOA
V74S
V73-74N
V131
V74
A
V140N
V14S-74N
V140
(TUL)
Tulsa
V140
V17
V14N-140
H
V140
V15
V74
V74N
(IFI)
Kingfisher
V14
V131-161
V74S
V17W-210
V14N-77E
V14S
Okmulgee
(OKM)
V74S
V140-272N
V17W-210-272N
(OKC)
V272
Oklahoma City
V210
B
V272S
V14-272S
V210-272
V131
V63
C
G
V272
V14
V14S
Hobart
(HBR)
V163
V163W
V15-161
McAlester
(MLC)
V14
R-5601D
R-5601 B
R-5601A
V77
R5601E
A-561A
F
V17-77E
V15E
E
SHEPARD 1
MOA
RIVERS
MOA
(DUC)
Duncan
V77E
A-561B
Ardmore
(ADM)
V63
V114
Wichita Falls
SHEPARD 2
MOA
V17
D
V102-114S
(SPS)
V102S
A-636
V161-163
V358
V15

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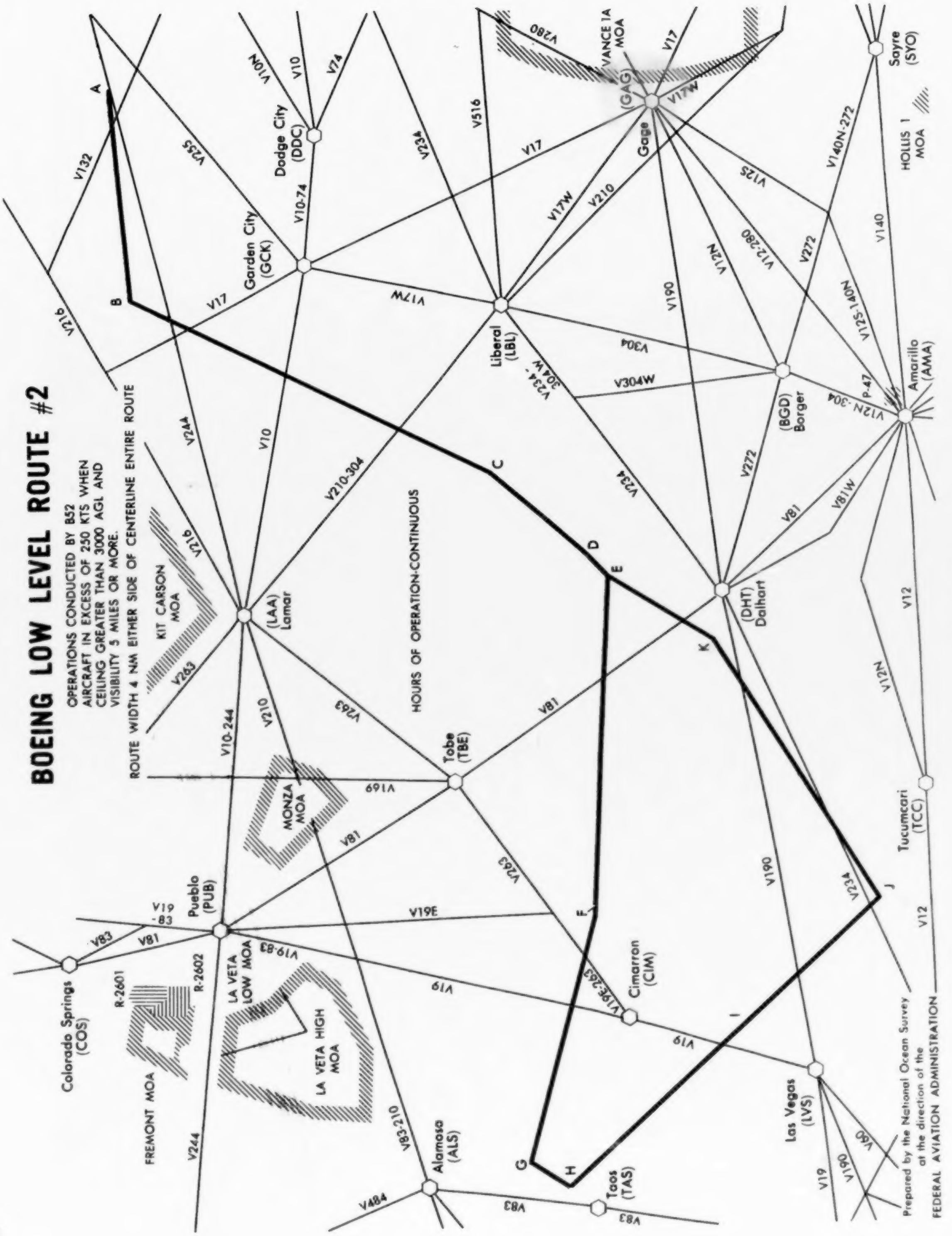

A
B
C
D
E
F
G
H
I
J
K
Colorado Springs (COS)
Pueblo (PUB)
Lamar (LAA)
Tobe (TBE)
Garden City (GCK)
Dodge City (DDC)
Liberal (LBL)
Gage (GAG)
Borger (BGD)
Amarillo (AMA)
Dalhart (DHT)
Sayre (SYO)
Tucumcari (TCC)
Cimarron (CIM)
Las Vegas (LVS)
Alamosa (ALS)
Taos (TAS)
FREMONT MOA
R-2601
R-2602
LA VETA LOW MOA
LA VETA HIGH MOA
MONZA MOA
KIT CARSON MOA
VANCE 1A MOA
HOLLIS 1 MOA
P-47
V132
V216
V255
V244
V10
V10-74
V10N
V74
V17
V17W
V210
V210-304
V234
V516
V280
V125
V140N-272
V140
V190
V12N
V12-280
V272
V125-140N
V304
V304W
V234-304W
V12N-304
V81
V81W
V12
V263
V10-244
V169
V19E
V19-83
V19
V19E-263
V83
V83-210
V484
V60

BOEING LOW LEVEL ROUTE #2

OPERATIONS CONDUCTED BY B52 AIRCRAFT IN EXCESS OF 250 KTS WHEN CEILING GREATER THAN 3000 AGL AND VISIBILITY 5 MILES OR MORE.

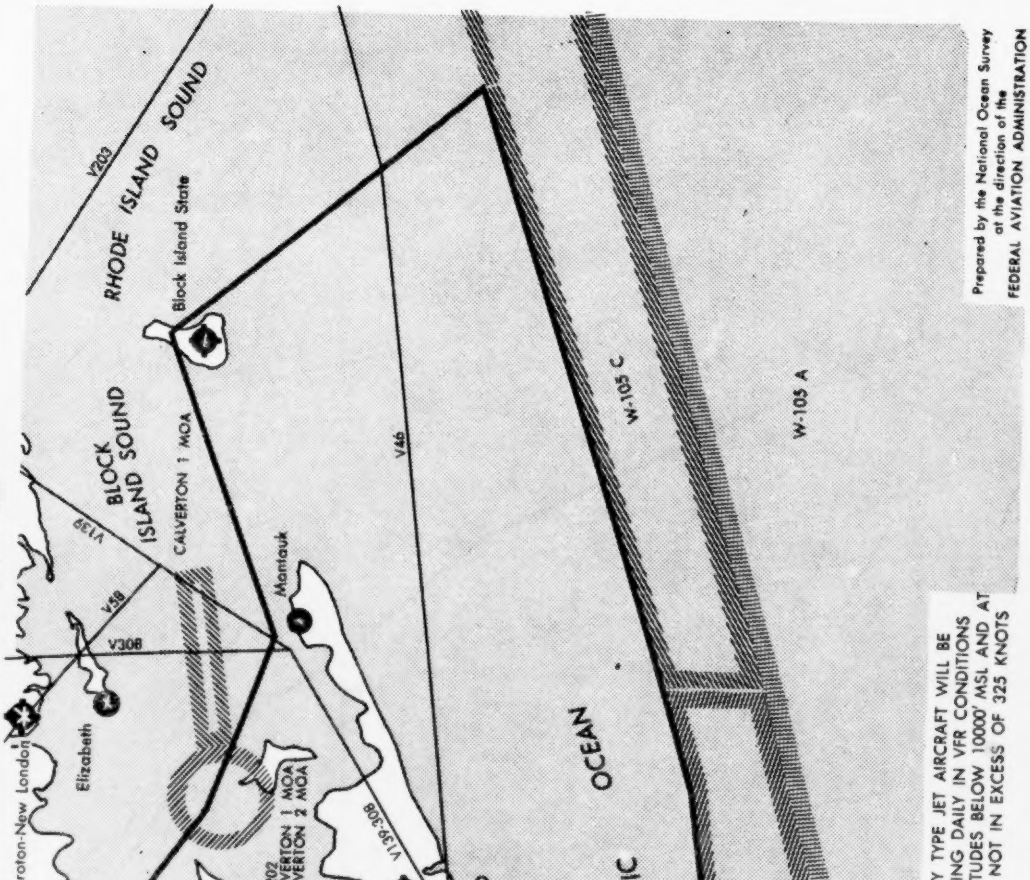
ROUTE WIDTH 4 NM EITHER SIDE OF CENTERLINE ENTIRE ROUTE

HOURS OF OPERATION-CONTINUOUS

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

19 APR 1979

GRUMMAN AEROSPACE CORPORATION
CIVIL FLIGHT TEST AREA
EFFECTIVE OCT 1, 1979 TO SEP 30, 1980


RHODE ISLAND SOUND
V203
Block Island State
BLOCK ISLAND SOUND
CALVERTON 1 MOA
V139
V58
V308
Montauk
Groton-New London
Elizabeth
R-5202
CALVERTON 1 MOA
CALVERTON 2 MOA
V130-308
East Hampton
HTO
V46
W-105 C
W-105 A
OCEAN
ATLANTIC
Griswold
V475
V475E
V229
MAD
V34
LONG ISLAND SOUND
V16
Mattituck
Suffolk Co
PECONIC RIVER PLANT
Spadaro
CCC
Tweed-New Haven
V467
V99
V228
V91
V16-46
Brookhaven
V139-308
W-106 B
W-106 A

MILITARY TYPE JET AIRCRAFT WILL BE OPERATING DAILY IN VFR CONDITIONS AT ALTITUDES BELOW 10000' MSL AND AT SPEEDS NOT IN EXCESS OF 325 KNOTS

Prepared by the National Ocean Survey
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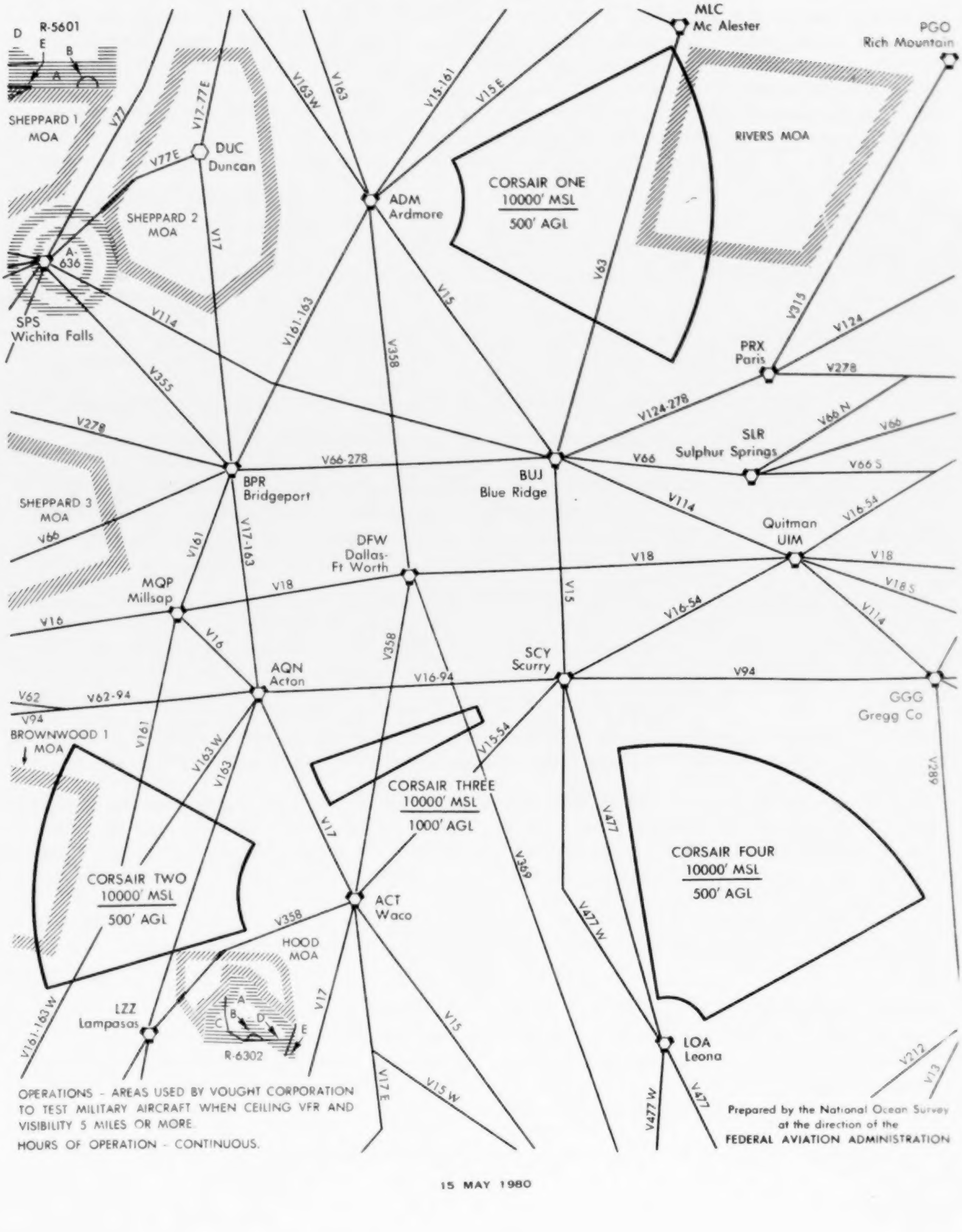
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

VOUGHT CORPORATION
LOW ALTITUDE FLYING AREAS


R-5601
D
E
B
A
SHEPPARD 1 MOA
V77
V17-77E
V77E
DUC Duncan
SHEPPARD 2 MOA
V17
A-636
SPS Wichita Falls
V114
V355
V163W
V163
V15-161
V15E
MLC Mc Alester
PGO Rich Mountain
ADM Ardmore
CORSAIR ONE
10000' MSL
500' AGL
RIVERS MOA
V63
V15
V161-163
V358
V315
V124
PRX Paris
V278
V124-278
SLR Sulphur Springs
V66 N
V66
V66 S
V278
BPR Bridgeport
V66-278
BUJ Blue Ridge
SHEPPARD 3 MOA
V66
V114
Quitman UIM
V16-54
V161
V17-163
DFW Dallas-Ft Worth
V18
V18
V18 S
MQP Millsap
V18
V16
V16
V15
V16-54
V114
SCY Scurry
AQN Acton
V16-94
V94
GGG Gregg Co
V62
V62-94
V94
BROWNWOOD 1 MOA
V161
V163 W
V163
V358
V15-54
CORSAIR THREE
10000' MSL
1000' AGL
V289
V477
V17
V369
CORSAIR TWO
10000' MSL
500' AGL
CORSAIR FOUR
10000' MSL
500' AGL
ACT Waco
V358
V477 W
HOOD MOA
A
B
C
D
E
R-6302
V17
V15
LZZ Lampasas
V161-163 W
LOA Leona
V17 E
V15 W
V477 W
V477
V212
V13

OPERATIONS - AREAS USED BY VOUGHT CORPORATION TO TEST MILITARY AIRCRAFT WHEN CEILING VFR AND VISIBILITY 5 MILES OR MORE.

HOURS OF OPERATION - CONTINUOUS.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

NORTH ATLANTIC MINIMUM NAVIGATION REQUIREMENTS

The concept of minimum Navigation Performance Specifications (MNPS) has been adopted on a world-wide basis by the International Civil Aviation Organization (ICAO). MNPS has the objective of ensuring both safe separation of aircraft and also to enable operators to derive maximum economic benefit from the improvement in accuracy of navigation equipment which has been demonstrated in recent years. An implicit condition of MNPS is that all operators must maintain the specified operating standards and be aware of the inherent obligations of the MNPS requirements. The MNPS concept will be implemented on a regional basis. Certain areas of the North Atlantic (NAT) region have introduced the MNPS concept. These areas are known as NAT MNPS airspace and include the following defined airspace boundaries:

(a) between FL275 and FL400;
(b) between latitudes 27°N and 67°N;
(c) in the East – the Eastern boundaries of CTAs Santa Maria Oceanic, Shanwick Oceanic and Reykjavik;
(d) in the West – the Western boundaries of CTAs Reykjavik and Gander Oceanic and New York Oceanic East of longitude 60°W.

Aircraft used to conduct flights within the volume of aircspace specified shall have navigation performance capability such that:

(a) the standard deviation of lateral track errors shall be less than 6.3 NM (11.7 Km);

> Note: As a considerable simplification, the above can be interpreted as a need for aircraft to stay within 12.6 NM (23.4 Km) of track for about 95% of the time.

(b) the proportion of the total flight time spent by aircraft 30 NM (55.6 Km) or more off the cleared track shall be less than $5.3x10^{-4}$ (i.e., less than 1 hour in about 2000 flight hours).

(c) the proportion of the total flight time spent by aircraft between 50 and 70 NM (92.6 and 129.6 Km) off the cleared track shall be less than $13x10^{-5}$ (i.e., less than 1 hour in about 8000 flight hours).

Such navigation performance capability shall be verified by the State of registry or the State of the aircraft operator as appropriate. Guidance material of use to those involved in the initial achievement and continued maintenance of the navigation capability set forth above has been issued by ICAO under the title "Guidance Material related to Air Navigation in the NAT Region" and will be supplemented and updated as required and as new material becomes available.

Flights entering MNPS airspace during any portion of their flight must enter the letter "X" after the letter "S" in item 10 of the ICAO flight plan to indicate that the flight has been certified as complying with MNPS.

Aircraft incapable of meeting MNPS in MNPS airspace will be given special consideration only in a very limited number of justified cases. Such consideration will require advance coordination between the requesting operator and the appropriate ATC authorities. The decision as to whether to allow such operations and, if so, the best method of operation will be made by the ATC authorities concerned with that airspace. The decision will be based upon the nature of the operation, the navigation capability of the aircraft, and the amount of air traffic forecast for the proposed time of operation. Final routing and/or handling or any such approved special arrangements will be in a manner that will not interfere with or impose a burden upon aircraft complying with MNPS.

The FAA has published Advisory Circular 91–49 offering a means of obtaining authorization to operate within NAT/MNPS airspace for operations conducted under FAR Part 91 and FAR Part 135. Advisory Circular 120–33 contains guidance for acquiring authorization to operate in NAT/MNPS airspace under FAR's 121, 123 and 135.2. Civil operators contemplating use of Loran C in MNPS airspace are advised to follow the MNPS certification process outlined in the appropriate advisory circular.

A. MONITORING OF NAVIGATION ACCURACIES

1. The data from which MNPS was calculated was derived from previous routine and special data collections involving radar observations and monitoring of equipment performance. In order to ensure that the MNPS are being met it is necessary to monitor the tracking accuracy of aircraft using the ATC radars which cover the exits from the oceanic airspace. The frequency of occurrence of the larger track deviations will be used as a measure of compliance with the second and third parameters of the specification. In cases of individual large errors, the pilot of the aircraft concerned will normally be notified by the ATC unit observing the error. The subsequent investigation may be carried out by the operator and its State of Registry after notification by the authority providing ATC service. If there is a serious increase in the number of large errors, it may become necessary to increase separation standards until remedial action has been determined. Alternatively if, rapid corrective action cannot be achieved, it may be necessary for the State of Registry or the State of the aircraft operator to temporarily exclude offending types of aircraft, or operators, from the "MNPS airspace."

2. An operator with MNPS approval who experiences a partial loss of navigation capability prior to entry in MNPS airspace should consider the following routes:

(a) STN/BEN-60N 10W-61N 1234W-LIMA-KF
(b) BEL-57N 10W-60N 15W-61N 1630W-MIKE-KF
(c) KF-XRAY-KK-SF-FB
(d) KF-UNIFORM-63N 30W-61N 40W-OZN
(e) OZN-59N 50W-PRAWN-KL
(f) OZN-59N 50W-PORGY-HO
(g) OZN-58N 50W-LOACH-YR

3. Operations on the above routes in MNPS airspace are subject to the following conditions:

(a) A revised flight plan is filed with ATC, and
(b) An appropriate ATC clearance is obtained.

(Note: A revised oceanic clearance will be issued only after coordination between all Oceanic Area Control centers concerned.)

(c) Sufficient navigation capability remains to meet the MNPS (i.e., redundancy may be lacking).

(d) The aircraft concerned may have to accept a lower than optimum flight level during peak traffic hours if the organized track structure extends to the northern part of the NAT.

(e) Nothing in these instructions override any redudancy requirements placed upon an operator by any Operations Specifications or FAR 121, 123, or 135.2, as appropriate.

B. ROUTES BETWEEN ICELAND AND NORTHERN EUROPE:

1. After a review of the navigation facilities available between Iceland and Northern Europe it has been agreed upon by the ICAO members that aircraft equipped with normal airways navigation equipment should be capable of meeting the MNPS when operating over certain routes between Iceland and Northern Europe. The routes will be designated G3 and G11 within and outside MNPS airspace.

G3 will be established as a route between Bergen via Myggenes and Ingo to Keflavik.
G11 will be established between Sumburgh via Akraberg to Myggenes.

2. Operation on certain routes between North Eastern Canada and Ireland or Northern United Kingdom via Iceland:

(a) It is anticipated that a continued requirement may exist for selected routes between N.E. Canada and Iceland and between Iceland and points in Ireland or the Northern U.K. which could be used by aircraft not

normally used in N. Atlantic operations or by aircraft on delivery. The routes listed in paragraph A-2 above should be used for such operations. Aircraft operating along these routes in MNPS airspace which are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

—Loran C

are considered capable of meeting MNPS while operating along these routes.

(b) The above-listed long range navigation equipment need not be permanent aircraft equipment.

C. ROUTES BETWEEN SPECIFIC POINTS IN PORTUGUESE TERRITORY:

1. Aircraft that are equipped with normal airway navigation equipment (VOR/DME, ADF) and at least one fully operational set of the following long range navigation equipment:

—doppler with computer

—INS

—OMEGA

are considered capable of meeting MNPS while operating along the following routes:

(a) PST-35N 20W-FOXTROT TWO-VSM
(b) CP-3820N 15W-38N 20W-ECHO/DELTA-VSM/MGL
(c) CP-3853N 15W-39N 20W-BRAVO-LM

NORTH ATLANTIC STANDARDIZED AIR/GROUND MESSAGES

1. *General*

1.1 In order to make an evaluation it is proposed that within the North Atlantic (NAT) Region all ATS Air/Ground messages should be categorized under one of the following headings:

- (a) Position report
- (b) Request Clearance
- (c) Revised estimate
- (d) Miscellaneous air/ground message

The purpose of the evaluation is to determine whether pilot/controller response times can be improved.

1.2 In order to enable the ground stations to process messages in the shortest possible time, it is requested that pilots should observe the following rules:

1) use the correct type of message applicable to the data transmitted;
2) state the message type on the contact call to the ground station or at the start of the message (except if it is a miscellaneous message);
3) adhere strictly to the sequence of information for the type of message; and
4) all times on each of the messages should be expressed in hours and minutes.

2. *Period of evaluation and scope of application*

2.1 Operational evaluation using the new ATS message types will commence *at 0001 GMT on 22 March 1979.* During the initial period of seven months, data will be collected, analysed and further action taken as necessary. The procedures detailed for the transmission of air/ground messages will apply to transatlantic aircraft operating within or through the Gander, New York, Reykjavik, Santa Maria and Shanwick CTAs whether using HF or G/P VHF.

2.2 It will especially assist the communicators operating the Clearance Delivery Frequencies at Shanwick if westbound oceanic clearance requests are also transmitted in the format and data content specified in para 3.1.2 during the evaluation period.

3. *Description of ATS Message Types*

3.1 It should be appreciated that messages that have no ATS connection, e.g. SELCAL checks, form no part of this evaluation. For the purpose of the evaluation aircraft should transmit air/ground messages using standard RTF phraseology in accordance with the following:

3.1.1 *POSITION*

To be used for routine position reports.

CONTENT OF POSITION REPORT MESSAGE AND DATA SEQUENCE

- (a) "POSITION"
- (b) Flight identification
- (c) Present position
- (d) Time over present position (hours and minutes)
- (e) Present flight level
- (f) Next position on assigned route
- (g) Estimate for next position (hours and minutes)
- (h) Any further information, e.g. AIREP data or Company message

3.1.2 *REQUEST CLEARANCE*

1) To be used in conjunction with a routine position report to obtain a change of Mach No., flight level or route and to obtain ***Westbound*** Oceanic clearance prior to entering Reykjavik, Santa Maria or Shanwick CTAs.

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

- (a) "REQUEST CLEARANCE"
- (b) Flight identification
- (c) Present or last reported position
- (d) Time over present or last reported position (hours and minutes)
- (e) Present flight level
- (f) Next position on assigned route or oceanic entry point
- (g) Estimate for next position or oceanic entry point (hours and minutes)
- (h) Requested Mach No (if applicable)
- (i) Requested flight level (if applicable)
- (j) Requested route (if applicable)
- (k) Further information or clarifying remarks

NOTE: the message implies that when a reclearance requested in respect of any single item in (h), (i) or (j) or any combination of these items it is to take effect as soon as possible unless otherwise stated in (k).

2) To be used to request a change of flight level or Mach No. *when a position report message is not appropriate.*

CONTENT OF REQUEST CLEARANCE MESSAGE AND DATA SEQUENCE

- (a) "REQUEST CLEARANCE"
- (b) Flight identification
- (c) Requested flight level and/or Mach No.
- (d) Further information of clarifying remarks

3.1.3 *REVISED ESTIMATE*

To be used to update estimate for next position.

CONTENT OF REVISED ESTIMATE MESSAGE AND DATA SEQUENCES

- (a) "REVISED ESTIMATE"
- (b) Flight identification
- (c) Next position on assigned route
- (d) Revised estimate for next position (hours and minutes)
- (e) Any further information

3.1.4 *MISCELLANEOUS*

To be used to pass information or make a request in plain language that does not conform with the three other formats. No message type designator is required to be stated by the pilot since message type will be inserted by the ground station.

CONTENT OF MISCELLANEOUS MESSAGE AND DATA SEQUENCE

- (a) Flight identification
- (b) General information or request in plain language—form free.

NORTH AMERICAN ROUTES FOR NORTH ATLANTIC TRAFFIC (NAR)

GENERAL

(a) The NAR system has been developed to achieve the following objectives: (1) to organize the fluctuating and reversing traffic flows in the most efficient possible manner, consistent with the needs of aircraft operators and air traffic services; (2) to expedite flight planning; (3) to reduce the complexity of route clearances and thereby minimize the confusion and error potential inherent in lengthy transmissions and readbacks; and (4) to minimize the time spent by pilots and controllers in the route clearance delivery function.

(b) The NAR system comprises a series of pre-planned routes over existing airway/route systems from/to the following coastal fixes serving the North Atlantic traffic. Most of the NAR routes are divided into two portions.

(1) Common Portion – That portion of the route between the coastal fix and a specified Inland Navigation Facility. Example – Route NA108 common portion is "St. John's (Nfld) HL575 J575 Boston."

(2) Non-Common Portion – That portion of the route between the specified Inland Navigation Facility and the system airport being used by the flight. Example – Route NA108 non-common portion may be "Boston Norwich Saybrook Star Kennedy" or it may be "Boston Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143S Westminister Frederick 082 Radial Frederick Dulles," depending on whether the system airport being used by the flight is Kennedy or Dulles.

(c) These routes are numbered and prefixed by the abbreviation "NA." Odd route numbers have eastbound application only and even route numbers have westbound application only.

(d) Aircraft are considered to be within the NAR system when they join the system at an identified coastal fix; they join the system on departure from one of the identified airports; or when they join the system at an identified Inland Navigation Facility.

(e) Since a primary function of the NAR system is to complement the North Atlantic Organized Track System (NAT/OTS), a limited number of NAR routes appropriate for the coastal fixes serving the OTS and domestic traffic organization are included in the daily NAT/OTS messages published by the Gander and Shanwick OAC's.

(f) All aircraft that enter/exit the North Atlantic via the identified coastal fixes should use the NAR system if their domestic route requirements are compatible with the system. However, when necessary, an operator may flight plan a domestic route other than the one included in the current NAT/OTS message. Similarly, due to traffic conditions, Air Traffic Control may clear an aircraft via a route other than that flight planned.

FLIGHT PLANNING

(a) Route Description

(1) When the route of flight within the NAR system can be described by a single NAR designator, the route should be indicated on the flight plan using the appropriate designator.

(2) In all other cases, a full description of the route is required.

(3) Aircraft flight planning into or from either Goose or Gander Airports, Canada, may file the NAR designator as the route of flight.

ROUTE CLEARANCES

(a) For aircraft operating within the NAR system, the ATC clearance and pilot readback will be as follows:

> (flight identification) IS CLEARED TO THE (destination) AIRPORT VIA NORTH AMERICAN ROUTE (number).

(b) For aircraft operating within the NAR system either to or/from an airport not included in a non-common route, the ATC clearance and pilot readback may be as follows:

> ATC CLEARS (flight identification) TO (overseas destination) VIA J545 HL545 LONDON HL586 STIRLING HL555 BAIE COMEAU NORTH AMERICAN ROUTE 251 GOOSE FLIGHT PLANNED ROUTE...
>
> (flight identification) IS CLEARED TO THE CLEVELAND AIRPORT VIA NORTH AMERICAN ROUTE 246 CHARLEVOIX HL555 QUEBEC HL546 KLEINBURG HL558 LONDON HL545 J545 CLEVELAND...

(c) Westbound aircraft operating within the North Atlantic Organized Track System and destined for one of the selected North American Terminals served by the NAR System, having experienced communications failure prior to receipt of domestic route clearance should consider as its cleared route of flight the NAR associated with its cleared oceanic track as published in the current NAT/OTS message.

(d) Aircraft not operating within the NAR system will be cleared via a fully detailed route.

DOCUMENTATION

(a) It is expected that the following NAR documentation will be carried on the flight deck of each aircraft operating within the NAR system: (1) a description of the current NAR and (2) the information contained in the current NAT/OTS message.

(b) The official NAR route descriptions are contained in both Canadian Ministry of Transport (MOT) and U.S. Federal Aviation Administration (FAA) publications. The official FAA listing appears in both the INTERNATIONAL FLIGHT INFORMATION MANUAL, issued annually and amended quarterly, and in the publication GRAPHIC NOTICES AND SUPPLEMENTAL DATA (U.S. AIP section RAC-9), issued quarterly. Both publications contain identical listings. Changes to the NAR routes are advertised in the bi-weekly publication INTERNATIONAL NOTICES TO AIRMEN and the bi-weekly publication NOTICES TO AIRMEN (CLASS II).

(c) The following listing divides the NAR Route descriptions into two sections according to the direction of flight (Eastbound or Westbound). Each section is subdivided according to the route portion (common or non-common). The common portion describes the NAR route between the Coastal Fix and the Inland Navigational Facility. The non-common portion describes the route between the NAR route system airport being used and the Inland Navigational Facility.

SECTION I – NAR EASTBOUND ROUTES

(A) COMMON PORTION (EASTBOUND)

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA1	Winny	R56	Slatn
NA3	Nantucket	J62	Poggo
NA21	Nantucket	Control 1146 Whale Bluse	Sable Island
NA23	Watertown	J595 HL595 Saint John (N.B.) HL506	Sable Island
NA25	Beauce	HL509 J509 Patta Millinocket J506 FL506	Sable Island
NA41	Nantucket	J585 HL585 Yarmouth HL575 Halifax Canso	Color
NA43	Watertown	J595 HL595 Saint John (N.B.) HL506 Halifax Canso	Color
NA45	Beauce	HL509 J509 Patta Millinocket J506 HL506 Halifax Canso	Color
NA47	Canal	J575 HL575 Halifax Canso	Color
NA61	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509	Sydney
NA63	Beauce	HL509 J509 HL509	Sydney
NA65	Nantucket	J585 HL585 Yarmouth HL575	Sydney
NA67	Canal	J575 HL575	Sydney
NA81	Nantucket	J585 HL585 Yarmouth HL575	St. John's (Nfld)
NA83	Watertown	J595 HL595 Saint John (N.B.) HL573 Charlottetown HL509 Sydney HL575	St. John's (Nfld)
NA85	Watertown	J595 HL595 St. John (N.B.) HL573	St. John's (Nfld)
NA87	Beauce	HL509 J509 HL509 Sydney HL575	St. John's (Nfld)
NA89	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573	St. John's (Nfld)
NA91	Canal	J575 HL575	St. John's (Nfld)
NA101	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577 Ramea	Vysta
NA103	Kennebunk	J573 HL573 Ramea	Vysta
NA105	Hyannis	J79 Seacr J573 HL573 Ramea	Vysta
NA107	Watertown	J595, HL595 Saint John (N.B.) HL573 Ramea	Vysta
NA109	Beauce	HL509 J509 HL509 Moncton HL500 Channel Head HL573 Ramea	Vysta

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA111	Canal	J575 HL575 Sydney HL577 Ramea	Vysta
NA121	Nantucket	J585 HL585 Yarmouth HL575 Sydney HL577	Gander
NA123	Kennebunk	J573 HL573 Channel Head HL500	Gander
NA125	Hyannis	J79 Seaer J573 HL573 Channel Head HL500	Gander
NA127	Watertown	J595 HL595 Saint John (N.B.) HL573 Channel Head HL500	Gander
NA129	Beauce	HL509 J509 HL509 Moncton HL500	Gander
NA131	Canal	J575 HL575 Sydney HL577	Gander
NA141	Kennebunk	J581 HL581 Stephenville HL579	Springdale
NA143	Kennebunk	J573 HL573 Channel Head	Springdale
NA145	Hyannis	J79 Bangor J581 HL581 Stephenville HL579	Springdale
NA147	Hyannis	J79 Seaer J573 HL573 Channel Head	Springdale
NA151	Beauce	HL509 J509 HL509 Cheps HL581 Stephenville HL579	Springdale
NA161	Kennebunk	J581 HL581 Conay	Dotty
NA163	Hyannis	J79 Bangor J581 HL581 Conay	Dotty
NA165	Beauce	HL509 J509 HL509 Cheps HL581 Conay	Dotty
NA167	Watertown	J595 Bangor J581 HL581 Conay	Dotty
NA181	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA183	Kennebunk	J55 Presque Isle J564 HL564 Charlo HL549	Natasquan
NA185	Hyannis	J79 Bangor J29 Presque Isle J564 HL564 Charlo HL549	Natashquan
NA187	Riviere du Loup	HL560 Mont Joli HL553	Natashquan
NA201	Kennebunk	J581 HL581 Conay HL571	St. Anthony
NA203	Hyannis	J79 Bangor J581 HL581 Conay HL571	St. Anthony
NA207	Cambridge	J49 Friar J55 Presque Isle J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA209	Beauce	HL509 J509 HL509 Cheps HL581 Conay HL571	St. Anthony
NA211	Beauce	HL564 J564 HL564 Charlo HL589 Heath Point HL571	St. Anthony
NA213	Riviere du Loup	HL589 Heath Point HL571	St. Anthony
NA215	Riviere du Loup	HL560 Mont Joli HL553	St. Anthony
NA221	Kennebunk	J55 Presque Isle J564 HL564	Port Menier
NA223	Hyannis	J79 Bangor J29 Presque Isle J564 HL564	Port Menier
NA225	Cambridge	J49 Friar J55 Presque Isle J564 HL564	Port Menier
NA227	Riviere du Loup	HL560 Mont Joli HL553	Port Menier
NA241	Kennebunk	J55 Presque Isle J582 HL582 Sept Illes HL560	Goose
NA243	Kennebunk	J55 Presque Isle Lake Eon HL560	Goose
NA245	Hyannis	J79 Bangor J29 Presque Isle J582 HL582 Sept Iles HL560	Goose
NA247	Hyannis	J79 Bangor J29 Presque Isle Lake Eon HL560	Goose

NAR Designator	Inland Navigation Facility	Route Description	Coastal Fix
NA249	Riviere du Loup	HL560	Goose
NA251	Baie Comeau	HL555 Lake Eon HL560	Goose
NA253	Cambridge	Sherbrook HL563 Riviere du Loup HL560	Goose
NA261	Kennebunk	J55 Presque Isle J582 HL582	Waco
NA263	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Waco
NA265	Cambridge	Sherbrooke HL563 Baie Comeau HL586	Waco
NA267	Baie Comeau	HL586	Waco
NA281	Kennebunk	J55 Presque Isle J582 HL582	Hopedale
NA283	Hyannis	J79 Bangor J29 Presque Isle J582 HL582	Hopedale
NA285	Cambridge	Sherbrooke HL563	Hopedale
NA287	Baie Comeau	HL563	Hopedale
NA289	Peck	J551 HL551	Hopedale

(B) NON-COMMON PORTION (EASTBOUND)

VIA BEAUCE

From	Non-Common Portions to Beauce
Montreal/Mirabel	V363 HL565
Montreal/Dorval	V352 HL509
Ottawa	V300 Valie Cote St. Luc
Toronto	V98 Stirling HL555 Montreal HL509
Detroit	Aylmer Toronto Stirling HL555 Montreal HL509
Chicago	London HL586 Stirling HL555 Montreal HL509

VIA BAIE COMEAU

From	Non-Common Portions to Baie Comeau
Montreal/Mirabel	V318 HL553 Charlevoix HL555
Montreal/Dorval	V352 V98 HL586
Ottawa	V360 V318 HL553 Charlevoix HL555
Toronto	V98 Stirling HL555
Detroit	Aylmer Toronto Stirling HL555
Chicago	London HL586 Stirling HL555

VIA CAMBRIDGE

There is no non-common portion to Cambridge.

VIA CANAL

There is no non-common portion to Canal.

VIA HYANNIS

There is no non-common portion to Hyannis.

VIA KENNEBUNK

There is no non-common portion to Kennebunk.

VIA NANTUCKET

From	Non-Common Portions to Nantucket
Kennedy	Sardi 7 Departure Direct

VIA PECK

From	Non-Common Portions to Peck
Chicago	Direct

VIA RIVIERE DU LOUP

From	Non-Common Portions to Riviere du Loup
Montreal/Mirabel	V318 HL553 Charlevoix
Montreal/Dorval	V352 V98 HL586 Quebec HL560
Toronto	V98 Stirling HL555 Quebec HL560
Ottawa	V360 V318 HL553 Charlevoix
Detroit	Aylmer Toronto Stirling HL555 Quebec HL560
Chicago	London HL586 Stirling HL555 Quebec HL560

VIA WATERTOWN

From	Non-Common Portions to Watertown
Chicago	London HL595 J595
Detroit	Aylmer Toronto
Toronto	V98 281 Radial Watertown

VIA WINNY

From	Non-Common Portions to Winny
Kennedy	Winny 2 Departure Direct

SECTION 2 – NAR WESTBOUND ROUTES

(A) COMMON PORTION (WESTBOUND)

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA2	Slatn	J97	Nantucket
NA4	Poggo	Direct	Hyannis
NA20	Sable Island	Bluse Whale Control 1146	Herin
NA22	Sable Island	HL506 Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA40	Color	Canso Halifax HL575 J575	Boston
NA42	Color	Canso Halifax HL575	Yarmouth
NA44	Color	Canso Halifax HL578 Parck HL500 J500 HL500	Sherbrooke
NA60	Sydney	HL575	Yarmouth
NA62	Sydney	HL575 J575	Boston
NA464	Sydney	HL509 Moncton HL500 J500 HL500	Sherbrooke
NA80	St. John's (Nfld.)	HL575	Yarmouth
NA82	St. John's (Nfld.)	HL575 J575	Boston
NA84	St. John's (Nfld.)	HL575 Sydney HL509 Moncton HL500 J500 HL500	Sherbrook
NA100	Vysta	Ramea HL577 Sydney HL575	Yarmouth
NA102	Vysta	Ramea HL577 Sydney HL575 J575	Boston
NA104	Vysta	Ramea HL573 J573	Kennebunk
NA106	Vysta	Ramea HL573 Channel Head HL500 J500 HL500	Sherbrooke
NA120	Gander	HL577 Sydney HL575	Yarmouth
NA122	Gander	HL577 Sydney HL575 J575	Boston
NA124	Gander	HL500 Channel Head HL573 J573	Kennebunk
NA126	Gander	HL500 J500 HL500	Sherbrooke
NA140	Springdale	HL579 Stephenville HL581 J581	Kennebunk
NA142	Springdale	HL579 Stephenville HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA160	Dotty	Conay HL581 J581	Kennebunk
NA162	Dotty	Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA180	Natashquan	HL549 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA182	Natashquan	HL549 Charlo HL589	Riviere du Loup
NA184	Natashquan	HL553	Charlevoix
NA200	St. Anthony	HL571 Conay HL581 J581	Kennebunk
NA202	St. Anthony	HL571 Heath Point HL589 Charlo HL564 J564 Presque Isle J55	Kennebunk
NA204	St. Anthony	HL553	Charlevoix
NA206	St. Anthony	HL571 Conay HL581 Fredericton HL500 J500 HL500	Sherbrooke
NA208	St. Anthony	HL571 Heath Point HL589	Riviere du Loup
NA210	St. Anthony	HL553 Mont Joli HL560	Riviere du Loup
NA220	Port Menier	HL564 J564 Presque Isle J55	Kennebunk
NA222	Port Menier	HL553 Mont Joli HL560	Riviere du Loup
NA224	Port Menier	HL553	Charlevoix
NA240	Goose	HL560 Lake Eon Presque Isle J55	Kennebunk
NA242	Goose	HL560 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA244	Goose	HL560 Riviere du Loup HL563 J563	Albany
NA246	Goose	HL560 Sept Iles HL555	Charlevoix

NAR Designator	Coastal Fix	Route Description	Inland Navigation Facility
NA260	Waco	HL582 J582 Presque Isle J55	Kennebunk
NA262	Waco	HL586 Baie Comeau HL563 J563	Albany
NA264	Waco	HL586	Charlevoix
NA280	Hopedale	HL551 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA282	Hopedale	HL551 Wabush HL561 J561 Presque Isle J55	Kennebunk
NA284	Hopedale	HL551 Wabush HL561 Baie Comeau HL563 J563	Albany
NA286	Hopedale	HL551 Chibougamau HL570 J570	Albany
NA288	Hopedale	HL551 Wabush HL561 Baie Comeau HL555	Charlevoix
NA290	Hopedale	HL551 J551 Peck J94 Pullman V84 Pappi	Chicago
NA292	Hopedale	HL551 Chibougamau HL545	Midland
NA294	Hopedale	HL551 Chibougamau HL570	Montreal/Mirabel /Dorval
NA302	Schefferville	HL561 J561 Presque Isle J55	Kennebunk
NA304	Schefferville	HL561 Baie Comeau HL563 J563	Albany
NA306	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570 J570	Albany
NA308	Schefferville	HL561 Wabush HL583 Sept Iles HL582 J582 Presque Isle J55	Kennebunk
NA310	Schefferville	HL548 Nitchequon HL545	Midland
NA312	Schefferville	HL561 Baie Comeau HL555	Charlevoix
NA314	Schefferville	HL548 J548 Pullman V84 Pappi	Chicago
NA316	Schefferville	HL548 Nitchequon HL545 Chibougamau HL570	Montreal/Mirabel /Dorval

(B) NON-COMMON PORTION (WESTBOUND)

VIA ALBANY

Non-Common Portions from Albany

Albany	Kingston Kingston Arrival	Kennedy
Albany	Pawling Calverton Calverton 193 Radial J121 Coyle 100 Radial Coyle	McGuire
Albany	J49 Hancock V153 Lake Henry V149 Mazie	Philadelphia
Albany	Pawling Calverton Calverton 193 Radial J121 Sea Isle	Dover
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Albany	J37 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA BOSTON

Non-Common Portions from Boston

Boston	Norwich Saybrook 3 Arrival	Kennedy
Boston	J55 Providence J121 Coyle 100 Radial Coyle	McGuire
Boston	J55 Providence J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Boston	J55 Providence J121 Sea Isle	Dover
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Boston	Putnam J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA CHARLEVOIX

Non-Common Portions from Charlevoix

Charlevoix	HL555 Quebec HL546 St. Felix de Valois V316	Montreal/Mirabel /Dorval
Charlevoix	HL553 V360	Ottawa
Charlevoix	HL553 Midland HL587 V34 Kleinburg	Toronto
Charlevois	HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Charlevoix	HL553 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA CHICAGO

There is no non-common portion from Chicago.

VIA HERIN

Non-Common Portions from Herin

Herin	Control 1142 Hyannis 014 Radial Scupp	Boston
Herin	J174 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Herin	J174 J121 Coyle 100 Radial Coyle	McGuire
Herin	J174 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Herin	J174 J121 Sea Isle	Dover
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Herin	J174 Hyannis J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA HYANNIS

Non-Common Portions from Hyannis

Hyannis	Hyannis 014 Radial Scupp	Boston
Hyannis	Hyannis Transition Suffolk 3 Arrival	Kennedy
Hyannis	J150 J121 Coyle 100 Radial Coyle	McGuire
Hyannis	J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Hyannis	J150 J121 Sea Isle	Dover
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Hyannis	J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA KENNEBUNK

Non-Common Portions from Kennebunk

Kennebunk	Kennebunk 178 Radial Scupp	Boston
Kennebunk	Kennebunk Transition Saybrook 3 Arrival	Kennedy
Kennebunk	J55 J121 Coyle 100 Radial Coyle	McGuire
Kennebunk	J55 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Kennebunk	J55 J121 Sea Isle	Dover
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Kennebunk	J581 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

VIA MIDLAND

Non-Common Portions from Midland

Midland	HL587 V34 Kleinburg	Toronto
Midland	HL545 London HL586 V98 Desdn V2 Rhyme	Detroit

VIA MONTREAL/MIRABEL/DORVAL

There is no non-common portion from Montreal/Mirabel/Dorval.

VIA NANTUCKET

Non-Common Portions from Nantucket

Nantucket	Nantucket 308 Radial J150 Hampton Suffolk 3 Arrival	Kennedy

VIA RIVIERE DU LOUP

Non-Common Portions from Riviere du Loup

Riviere du Loup	**HL560 Quebec HL546 St. Felix de Valois V316**	**Montreal/Mirabel /Dorval**
Riviere du Loup	**Charlevoix H553 V360**	**Ottawa**
Riviere du Loup	**Charlevoix HL553 Midland HL587 V34 Kleinburg**	**Toronto**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme**	**Detroit**
Riviere du Loup	**Charlevoix HL553 Ottawa HL546 J546 Peck J94 PUllman V84 Pappi**	**Chicago**

VIA SHERBROOKE

Non-Common Portions from Sherbrooke

Sherbrooke	HL500 V300 St. Jean (Que)	Montreal/Mirabel /Dorval
Sherbrooke	HL500 St. Jean (Que) V487 Montreal V316	Ottawa
Sherbrooke	HL500 Ottawa HL553 Midland HL587 V34 Kleinburg	Toronto
Sherbrooke	HL500 Ottawa HL546 Kleinburg HL558 London HL586 V98 Desdn V2 Rhyme	Detroit
Sherbrooke	HL500 Ottawa HL546 J546 Peck J94 Pullman V84 Pappi	Chicago

VIA YARMOUTH

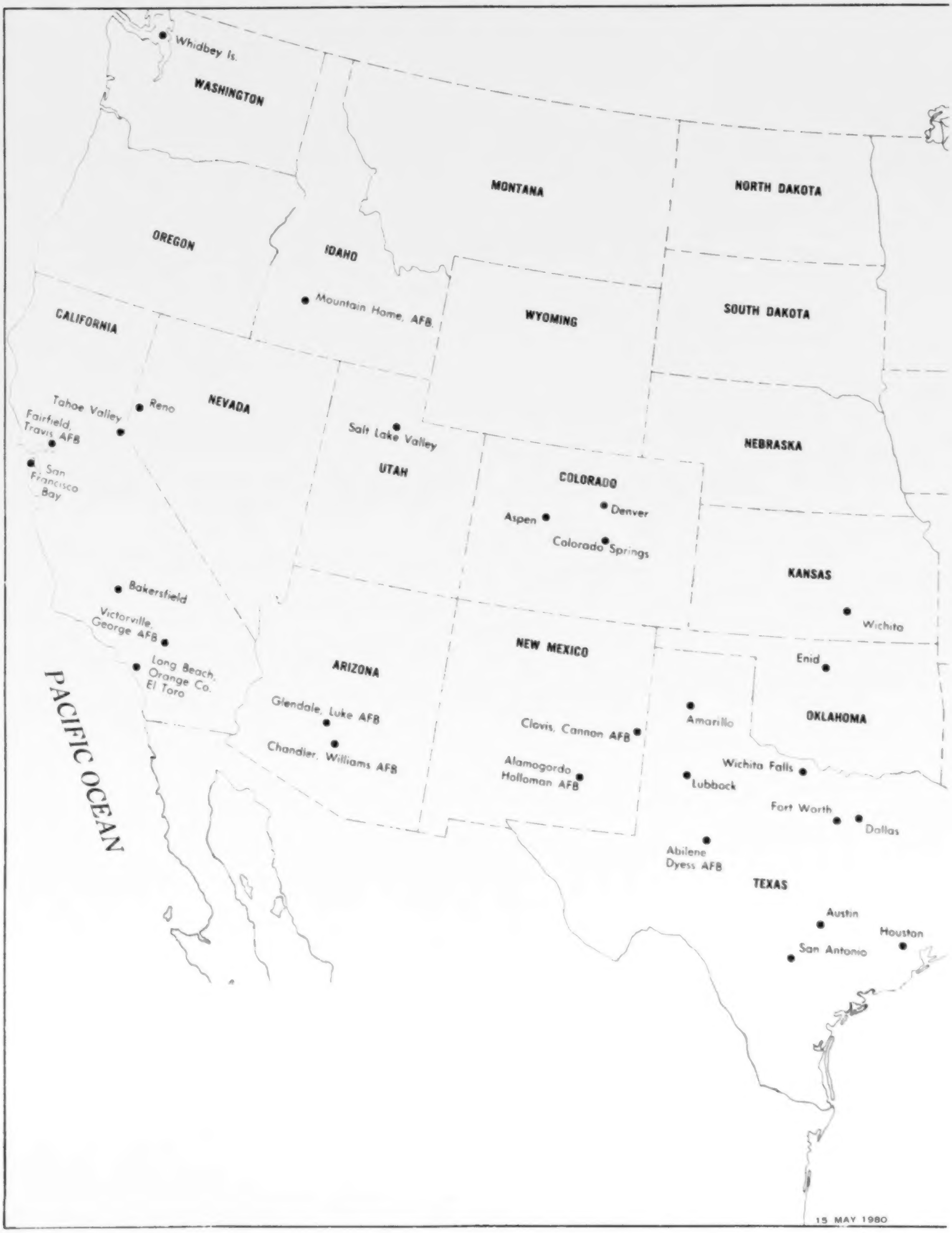
Non-Common Portions from Yarmouth

Yarmouth	HL575 J575 Scupp	Boston
Yarmouth	HL585 J585 J150 Hyannis Hyannis Transition Suffolk 3 Arrival	Kennedy
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial Coyle	McGuire
Yarmouth	HL585 J585 J150 J121 Coyle 100 Radial V312 Woodstown	Philadelphia
Yarmouth	HL585 J585 J150 J121 Sea Isle	Dover
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V3 Taylor V93 Jaret	Baltimore
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V378 Ensue	Andrews
Yarmouth	HL585 J585 J150 J62 Kennedy Kennedy 263 Radial Modena 056 Radial Modena V474 V143 Scoby Armel	Dulles

TERMINAL AREA GRAPHIC NOTICES

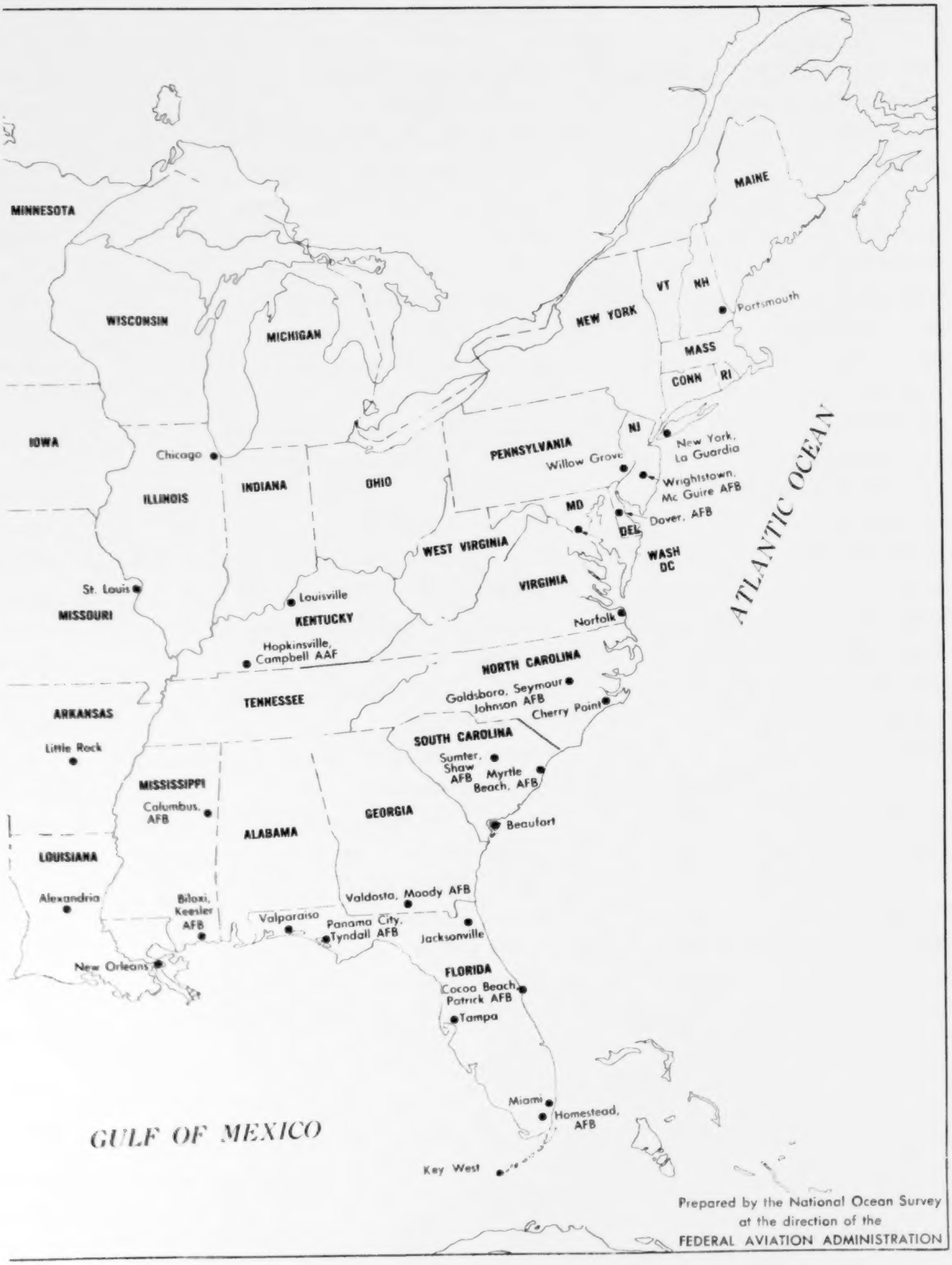
Under this heading, on the following pages, will be found a number of graphics showing areas of concentrated traffic for the information and guidance of pilots operating under VFR in the terminal areas depicted. The graphics are intended to assist VFR pilots planning flight in the areas and in many instances recommended or suggested VFR routes/corridors are shown. The information presented is in no way to be considered mandatory or "legal": it is advisory only.

INDEX OF TERMINAL AREA GRAPHIC NOTICES


Whidbey Is.
WASHINGTON
MONTANA
NORTH DAKOTA
OREGON
IDAHO
Mountain Home, AFB.
WYOMING
SOUTH DAKOTA
CALIFORNIA
NEVADA
Tahoe Valley
Reno
Fairfield, Travis AFB
San Francisco Bay
Salt Lake Valley
UTAH
NEBRASKA
COLORADO
Denver
Aspen
Colorado Springs
KANSAS
Wichita
Bakersfield
Victorville, George AFB
Long Beach, Orange Co. El Toro
NEW MEXICO
Enid
ARIZONA
PACIFIC OCEAN
Glendale, Luke AFB
Chandler, Williams AFB
Clovis, Cannon AFB
Amarillo
OKLAHOMA
Alamogordo Holloman AFB
Wichita Falls
Lubbock
Fort Worth
Dallas
Abilene Dyess AFB
TEXAS
Austin
Houston
San Antonio

15 MAY 1980

INDEX OF TERMINAL AREA GRAPHIC NOTICES


MINNESOTA
WISCONSIN
MICHIGAN
IOWA
ILLINOIS
Chicago
INDIANA
OHIO
PENNSYLVANIA
Willow Grove
NEW YORK
VT
NH
MAINE
Portsmouth
MASS
CONN
RI
NJ
New York, La Guardia
Wrightstown, Mc Guire AFB
MD
DEL
Dover, AFB
WASH DC
WEST VIRGINIA
VIRGINIA
Norfolk
ATLANTIC OCEAN
MISSOURI
St. Louis
Louisville
KENTUCKY
Hopkinsville, Campbell AAF
NORTH CAROLINA
Goldsboro, Seymour Johnson AFB
Cherry Point
TENNESSEE
ARKANSAS
Little Rock
SOUTH CAROLINA
Sumter, Shaw AFB
Myrtle Beach, AFB
MISSISSIPPI
Columbus, AFB
ALABAMA
GEORGIA
Beaufort
LOUISIANA
Alexandria
Biloxi, Keesler AFB
Valdosta, Moody AFB
Valparaiso
Panama City, Tyndall AFB
Jacksonville
New Orleans
FLORIDA
Cocoa Beach, Patrick AFB
Tampa
Miami
Homestead, AFB
GULF OF MEXICO
Key West

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

NEW GRAPHIC-★
MAJOR REVISION-†

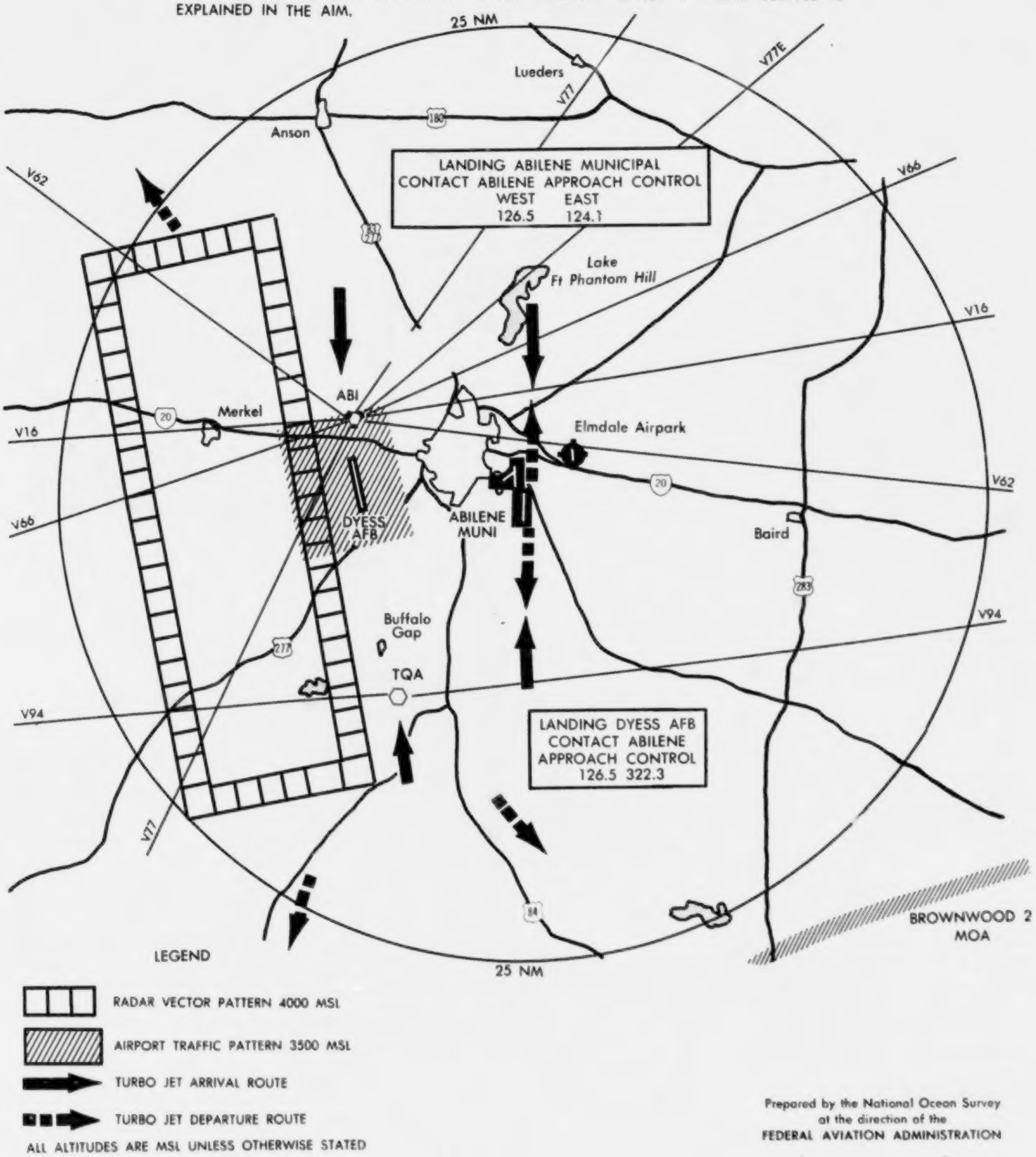
TABLE OF CONTENTS

Abilene, Dyess AFB, Tx. †Term-5
Alamogordo, Holloman AFB, N.M. Term-6
Alexandria, La. Term-7
Amarillo, Tx. Term-8
Aspen, Co. Term-9
Austin, Tx. Term-10
Bakersfield, Ca. Term 11
Beaufort, S.C. Term-12
Biloxi, Keesler AFB, Ms. Term-13
Chandler, Williams AFB, Az. Term-14
Cherry Point, N.C. Term-15
Chicago, Il. Term-16
Clovis, Cannon AFB, N.M. Term-17
Cocoa Beach, Patrick AFB. Fl. Term-18
Colorado Springs, Co. Term-19
Columbus, AFB, Ms. Term-20
Dallas, Tx. Term-21
Denver, Co. Term-22
Dover, AFB, De. Term-23
Eglin AFB, Fl. (See Valparaiso, Fl.)
Enid, Ok. Term-24
Fairfield, Travis AFB, Ca. Term-25
Fort Walton Beach, Fl. (See Valparaiso, Fl.)
Fort Worth, Tx. Term-26
Glendale, Luke AFB, Az. Term-27
Goldsboro, Seymour Johnson AFB, N.C. Term-28
Homestead AFB, Fl. Term-29
Hopkinsville, Campbell AAF, Ky. Term-30
Houston, Tx. Term-31
Jacksonville, Fl. Term-32
Key West, Fl. Term-33
Little Rock, Ar. Term-34
Long Beach, Orange Co. El Toro, Ca. Term-35
Louisville, Ky. Term-36
Lubbock, Tx. Term-37
Miami, Fl. Term 38
Mountain Home, AFB, Id. Term-39
Myrtle Beach, AFB, S.C. Term-40
New Orleans, La. Term-41
New York, La Guardia, N.Y. Term-42
Norfolk, Va. Term-43
Panama City, Tyndall AFB, Fl. Term-44
Portsmouth, Pease AFB, N.H. Term-45
Reno, Nv. Term-46
St. Louis, Mo. Term-47
Salt Lake Valley, Ut. †Term-48
San Antonio, Tx. Term-49
San Francisco Bay, Ca. Term-50
Sumter, Shaw AFB, S.C. Term-51
Tahoe Valley, Ca. Term-52
Tampa, Fl. Term-53
Valdosta, Moody AFB, Ga. Term-54
Valparaiso, Fl. Term-55
Victorville, George AFB, Ca. Term-56
Whidbey Is., Wa. Term-57
Wichita, Ks. Term-58
Wichita Falls, Tx. Term-59
Willow Grove, Pa. Term-60
Wrightstown, McGuire AFB, N.J. Term-61
Washington Nat'l Arpt. Noise Abatement Procedure Term-62

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ABILENE-DYESS, TEXAS

THIS GRAPHIC SHOWS THE PRINCIPLE IFR JET TRAFFIC FLOWS. AIRCRAFT LANDING ABILENE MUNICIPAL OR DYESS AFB ARE ENCOURAGED TO CONTACT APPROACH CONTROL APPROXIMATELY 25 MILES OUT FOR STAGE II SERVICES. (SEE FREQUENCY BOXES BELOW) RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


25 NM
Lueders
V77
V77E
Anson
180
LANDING ABILENE MUNICIPAL
CONTACT ABILENE APPROACH CONTROL
WEST EAST
126.5 124.1
V62
V66
277
Lake
Ft Phantom Hill
V16
ABI
Merkel
20
V16
Elmdale Airpark
V62
20
V66
DYESS
AFB
ABILENE
MUNI
Baird
283
V94
Buffalo
Gap
277
TQA
V94
LANDING DYESS AFB
CONTACT ABILENE
APPROACH CONTROL
126.5 322.3
V77
84
BROWNWOOD 2
MOA
25 NM
LEGEND
RADAR VECTOR PATTERN 4000 MSL
AIRPORT TRAFFIC PATTERN 3500 MSL
TURBO JET ARRIVAL ROUTE
TURBO JET DEPARTURE ROUTE
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

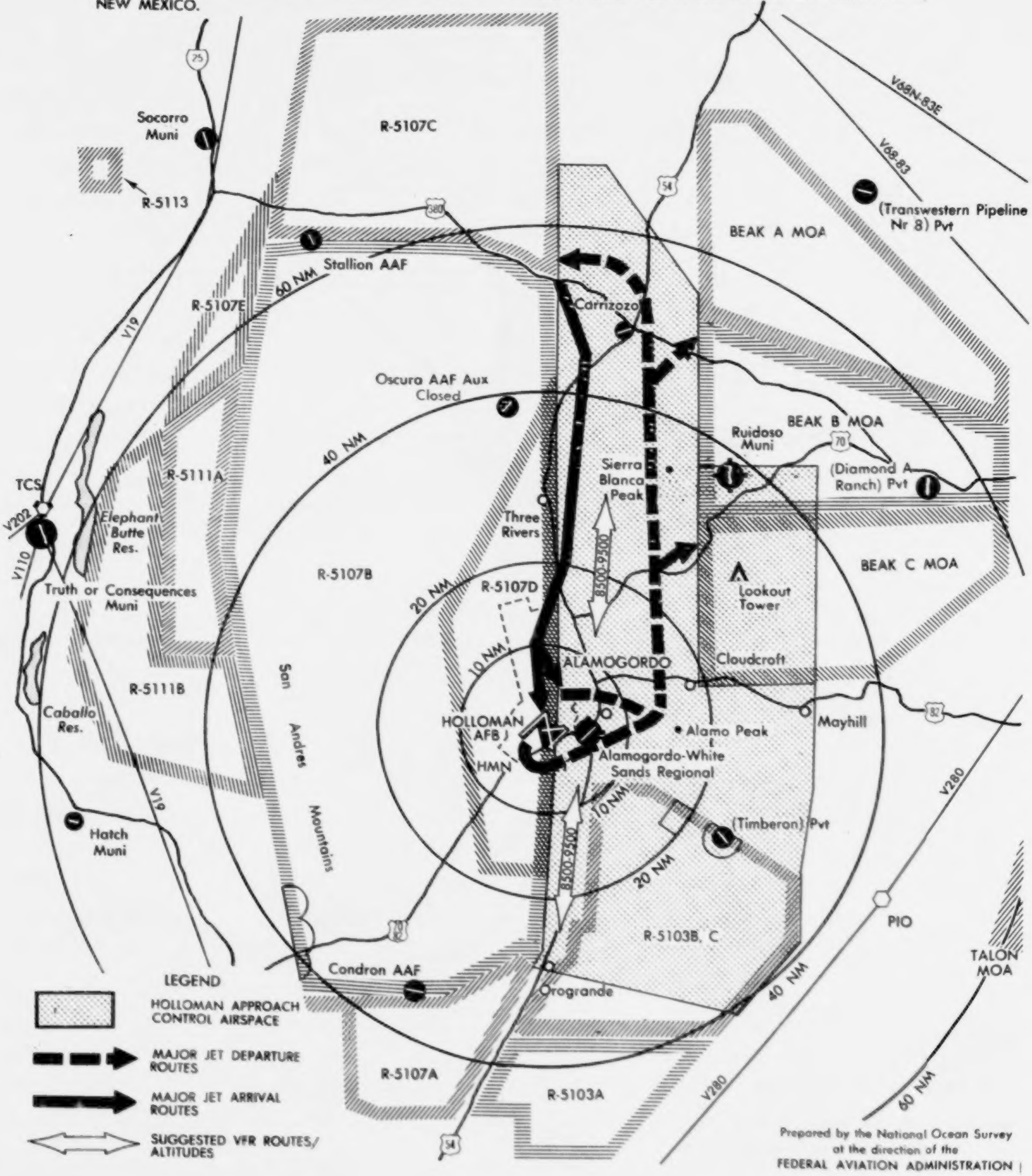
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

28 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALAMOGORDO, HOLLOMAN AFB, NEW MEXICO

THIS NOTICE DEPICTS THE FLOW OF AIR TRAFFIC WITHIN THE HOLLOMAN AREA. THE PURPOSE OF THE CHART IS TO ASSIST PILOTS OPERATING VFR IN PLANNING THEIR ROUTE INTO AND THROUGH THE AREA. VFR AIRCRAFT SHOULD CONTACT HOLLOMAN APPROACH CONTROL ON 120.6 OR 324.3 FOR STAGE II SERVICE. CAUTION: HIGH SPEED JET AIRCRAFT CROSSING HIGHWAY 54, EAST TO WEST AT OR BELOW 2000 AGL IN THE VICINITY OF THREE RIVERS, NEW MEXICO.


25
Socorro Muni
R-5113
R-5107C
380
54
V68N-83E
V68-83
(Transwestern Pipeline Nr 8) Pvt
BEAK A MOA
Stallion AAF
60 NM
R-5107E
V19
Carrizozo
Oscura AAF Aux Closed
40 NM
BEAK B MOA
Ruidoso Muni
70
(Diamond A Ranch) Pvt
R-5111A
TCS
V202
Elephant Butte Res.
V110
Sierra Blanca Peak
Three Rivers
8500-9500
BEAK C MOA
Lookout Tower
R-5107B
R-5107D
20 NM
Truth or Consequences Muni
10 NM
ALAMOGORDO
Cloudcroft
R-5111B
San Andres Mountains
Caballo Res.
HOLLOMAN AFB
HMN
Alamo Peak
Mayhill
82
Alamogordo-White Sands Regional
V19
Hatch Muni
(Timberon) Pvt
V280
8500-9500
20 NM
PIO
70
R-5103B, C
TALON MOA
LEGEND
Condron AAF
Orogrande
40 NM
HOLLOMAN APPROACH CONTROL AIRSPACE
MAJOR JET DEPARTURE ROUTES
R-5107A
MAJOR JET ARRIVAL ROUTES
R-5103A
V280
60 NM
SUGGESTED VFR ROUTES/ ALTITUDES
54

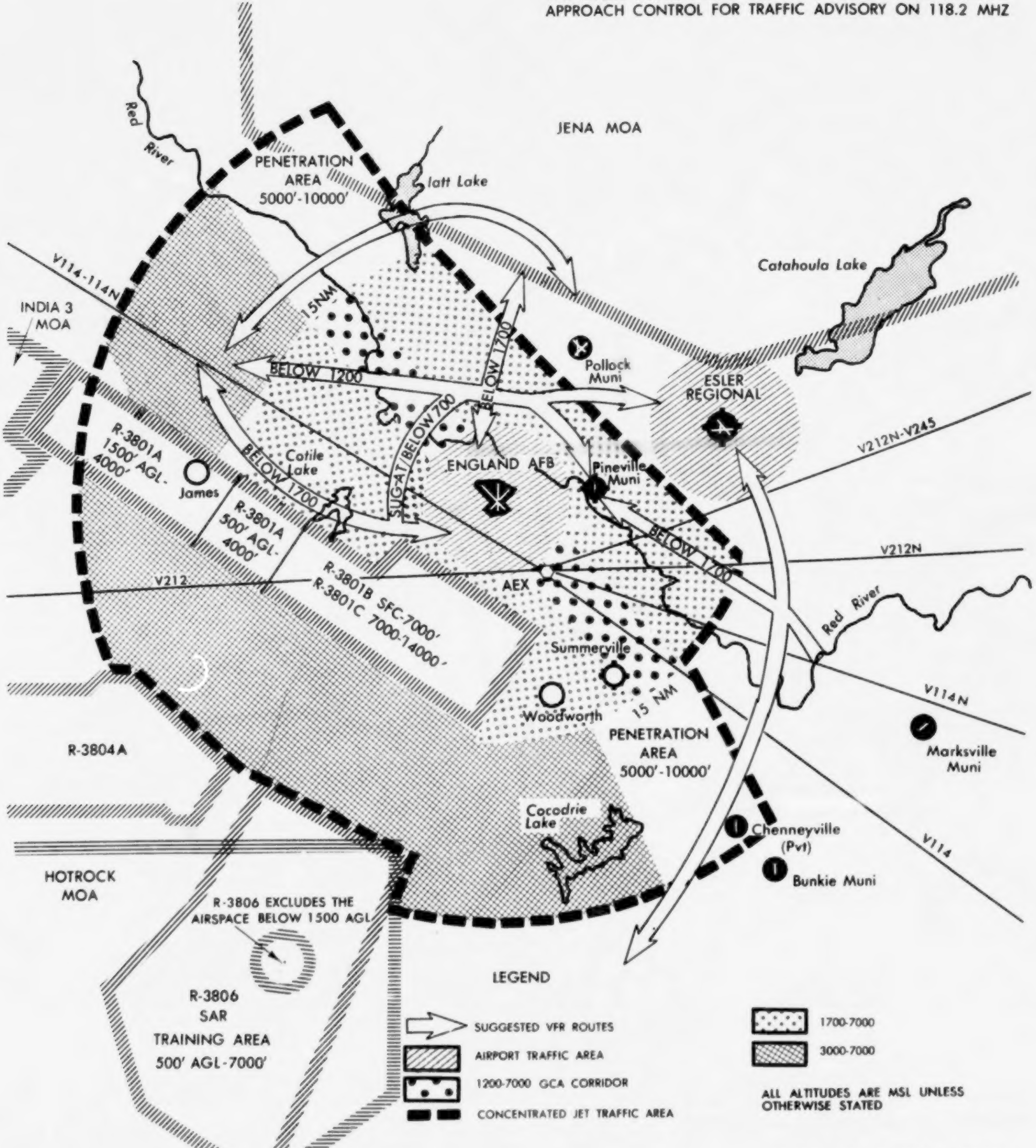
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ALEXANDRIA, LOUISIANA

VFR PILOTS ARE ENCOURAGED TO CONTACT ALEXANDRIA APPROACH CONTROL FOR TRAFFIC ADVISORY ON 118.2 MHZ


Red River
JENA MOA
PENETRATION AREA 5000'-10000'
Iatt Lake
Catahoula Lake
V114-114N
INDIA 3 MOA
15NM
BELOW 1200
BELOW 1700
BELOW 700
PUG-AT BELOW 700
Pollock Muni
ESLER REGIONAL
V212N-V245
R-3801A 1500' AGL-4000'
James
Cotile Lake
BELOW 1700
ENGLAND AFB
Pineville Muni
R-3801A 500' AGL-4000'
BELOW 1700
V212N
V212
AEX
R-3801B SFC-7000'
R-3801C 7000'-14000'
Red River
Summerville
Woodworth
15 NM
V114N
PENETRATION AREA 5000'-10000'
Marksville Muni
R-3804A
Cocodrie Lake
Chenneyville (Pvt)
V114
Bunkie Muni
HOTROCK MOA
R-3806 EXCLUDES THE AIRSPACE BELOW 1500 AGL
R-3806 SAR TRAINING AREA 500' AGL-7000'
LEGEND
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
1200-7000 GCA CORRIDOR
CONCENTRATED JET TRAFFIC AREA
1700-7000
3000-7000
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

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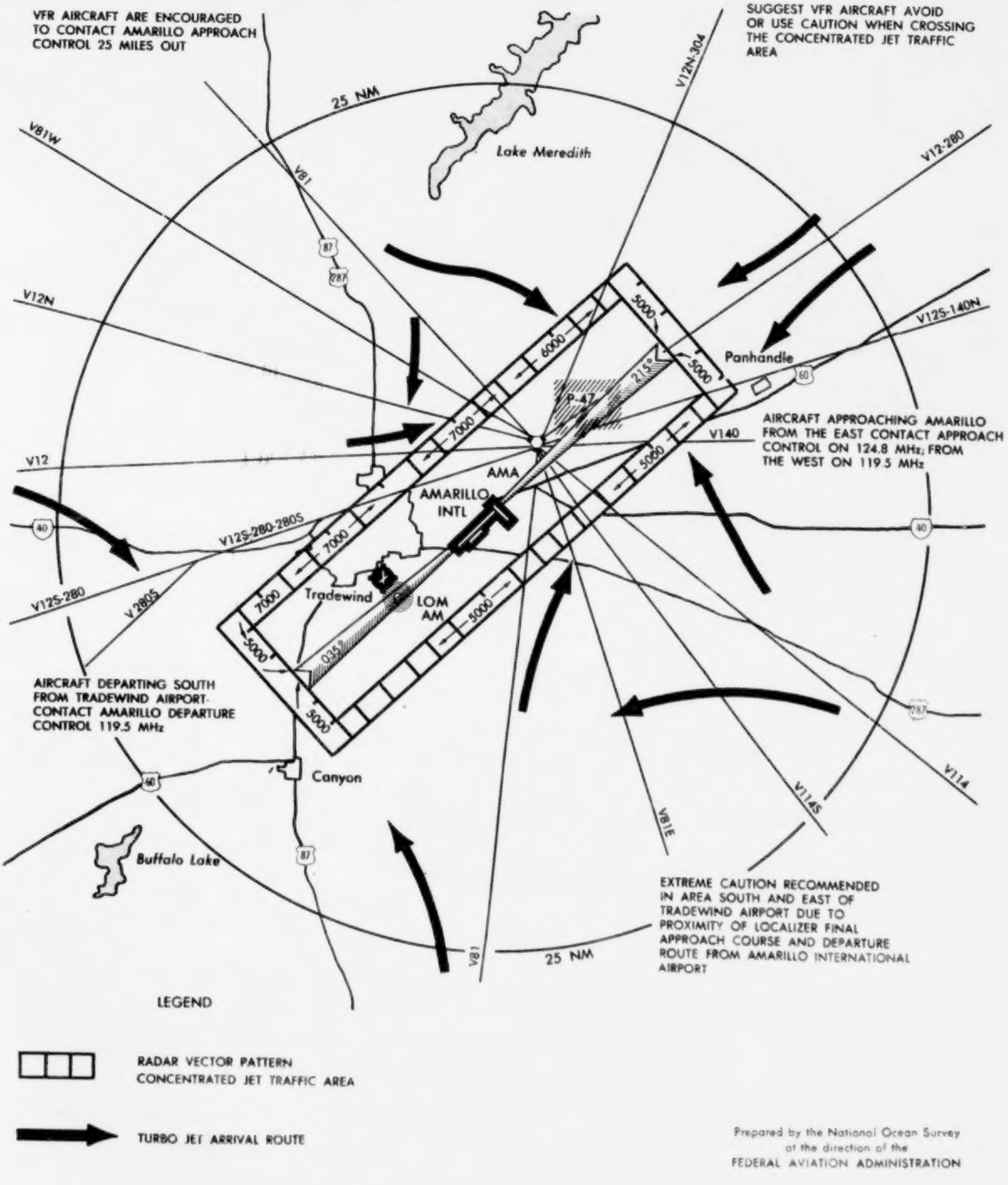
10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AMARILLO, TEXAS
AMARILLO INTERNATIONAL



VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AMARILLO APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THE CONCENTRATED JET TRAFFIC AREA

AIRCRAFT APPROACHING AMARILLO FROM THE EAST CONTACT APPROACH CONTROL ON 124.8 MHz; FROM THE WEST ON 119.5 MHz

AIRCRAFT DEPARTING SOUTH FROM TRADEWIND AIRPORT- CONTACT AMARILLO DEPARTURE CONTROL 119.5 MHz

EXTREME CAUTION RECOMMENDED IN AREA SOUTH AND EAST OF TRADEWIND AIRPORT DUE TO PROXIMITY OF LOCALIZER FINAL APPROACH COURSE AND DEPARTURE ROUTE FROM AMARILLO INTERNATIONAL AIRPORT

25 NM
Lake Meredith
V81W
V81
V12N-304
V12-280
87
287
V12N
V12S-140N
Panhandle
60
P-47
215°
6000
5000
7000
V140
V12
AMA
AMARILLO INTL
40
V12S-280-280S
V12S-280
V280S
Tradewind
LOM AM
035°
Canyon
287
V114
V114S
V81E
Buffalo Lake
LEGEND
RADAR VECTOR PATTERN CONCENTRATED JET TRAFFIC AREA
TURBO JET ARRIVAL ROUTE

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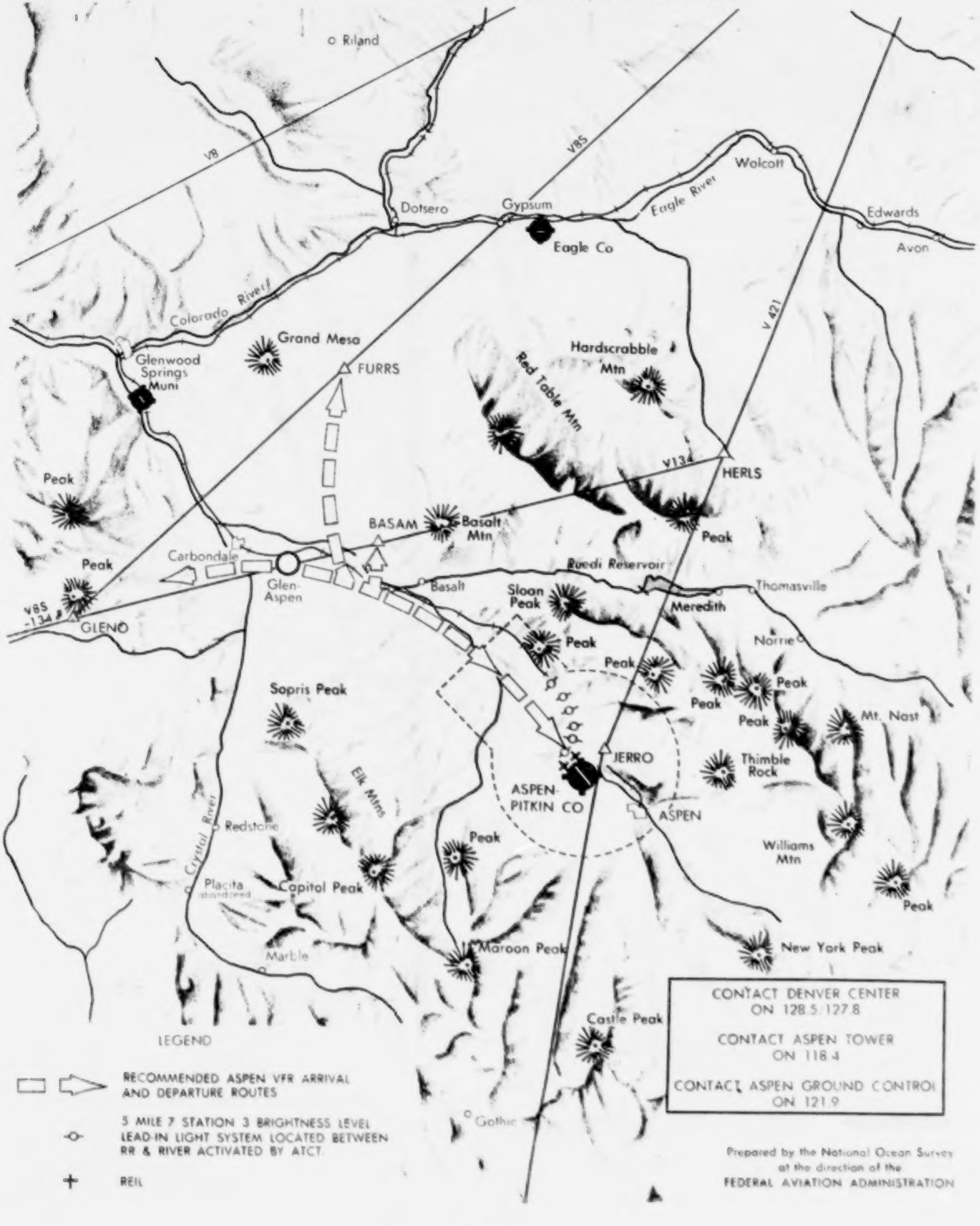
24 JAN 1980

ASPEN, COLORADO, ASPEN, PITKIN CO.


Riland
V8
V85
Dotsero
Gypsum
Eagle Co
Eagle River
Wolcott
Edwards
Avon
Colorado River
Glenwood Springs Muni
Grand Mesa
FURRS
Red Table Mtn
Hardscrabble Mtn
V 421
Peak
V134
HERLS
BASAM
Basalt Mtn
Peak
Carbondale
Glen-Aspen
Peak
V85 -134
GLENO
Basalt
Ruedi Reservoir
Sloan Peak
Meredith
Thomasville
Peak
Peak
Norrie
Sopris Peak
Peak
Peak
Peak
Mt. Nast
JERRO
Thimble Rock
ASPEN-PITKIN CO
ASPEN
Elk Mtns
Redstone
Crystal River
Peak
Williams Mtn
Placita
Capitol Peak
Peak
Marble
Maroon Peak
New York Peak
Castle Peak
Gothic
LEGEND

CONTACT DENVER CENTER
ON 128.5/127.8

CONTACT ASPEN TOWER
ON 118.4

CONTACT ASPEN GROUND CONTROL
ON 121.9

LEGEND

RECOMMENDED ASPEN VFR ARRIVAL AND DEPARTURE ROUTES

5 MILE 7 STATION 3 BRIGHTNESS LEVEL LEAD-IN LIGHT SYSTEM LOCATED BETWEEN RR & RIVER ACTIVATED BY ATCT

+ REIL

Prepared by the National Ocean Survey
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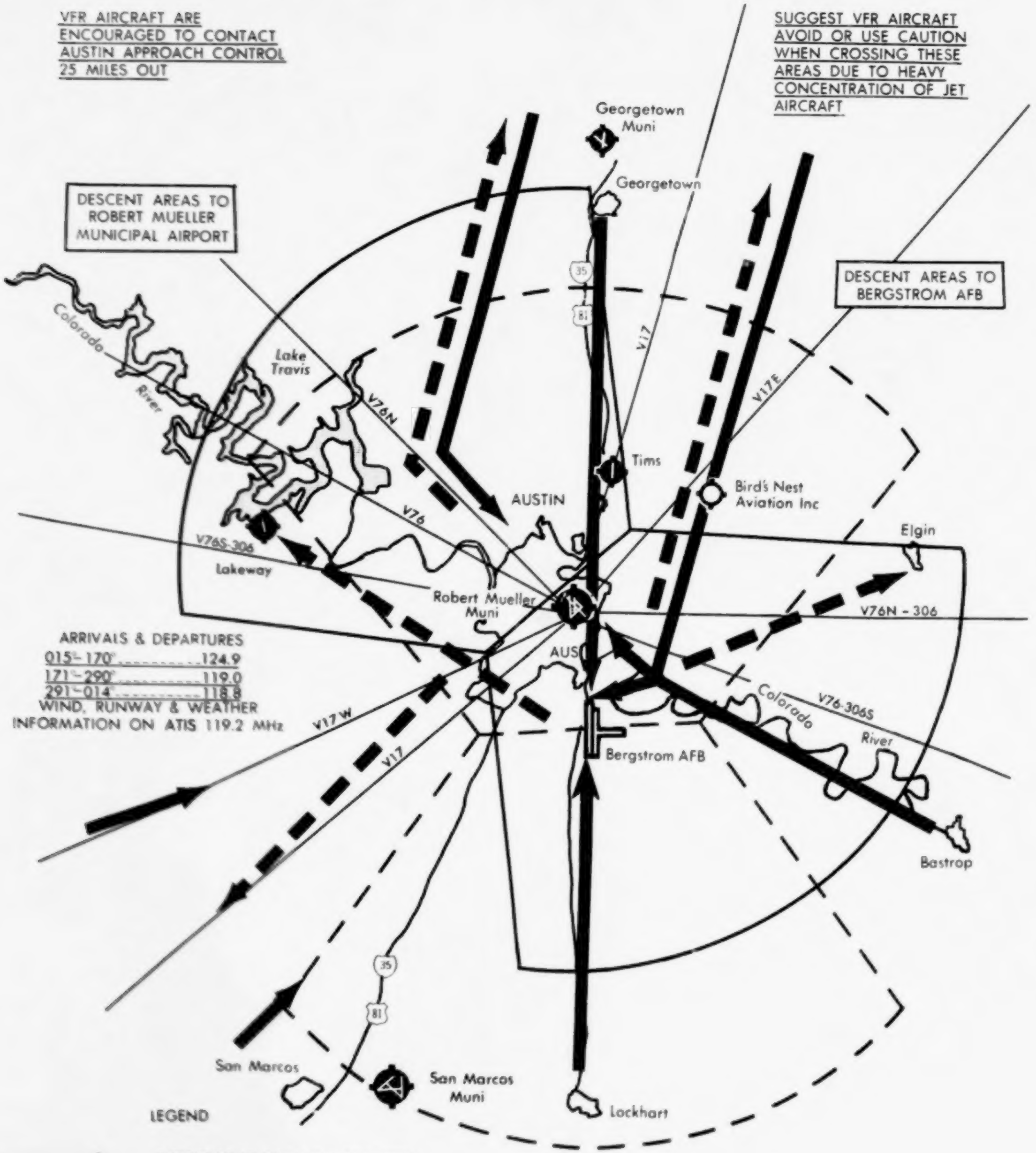
FEDERAL AVIATION ADMINISTRATION

19 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

AUSTIN, TEXAS


Georgetown Muni
Georgetown
35
81
V17
V17E
Lake Travis
Colorado River
V76N
V76
V76S-306
Lakeway
AUSTIN
Tims
Bird's Nest Aviation Inc
Elgin
Robert Mueller Muni
V76N - 306
AUS
V76-306S
Colorado River
Bergstrom AFB
V17W
V17
Bastrop
35
81
San Marcos
San Marcos Muni
Lockhart

VFR AIRCRAFT ARE ENCOURAGED TO CONTACT AUSTIN APPROACH CONTROL 25 MILES OUT

SUGGEST VFR AIRCRAFT AVOID OR USE CAUTION WHEN CROSSING THESE AREAS DUE TO HEAVY CONCENTRATION OF JET AIRCRAFT

DESCENT AREAS TO ROBERT MUELLER MUNICIPAL AIRPORT

DESCENT AREAS TO BERGSTROM AFB

ARRIVALS & DEPARTURES

015°-170°	124.9
171°-290°	119.0
291°-014°	118.8

WIND, RUNWAY & WEATHER INFORMATION ON ATIS 119.2 MHz

LEGEND

━━━▶ TURBOJET/CONVENTIONAL DESCENT ROUTES/CORRIDORS FROM 10,000 MSL TO SURFACE

━ ━ ▶ TURBOJET/CONVENTIONAL CLIMB ROUTES/CORRIDORS FROM SURFACE TO 10,000 MSL

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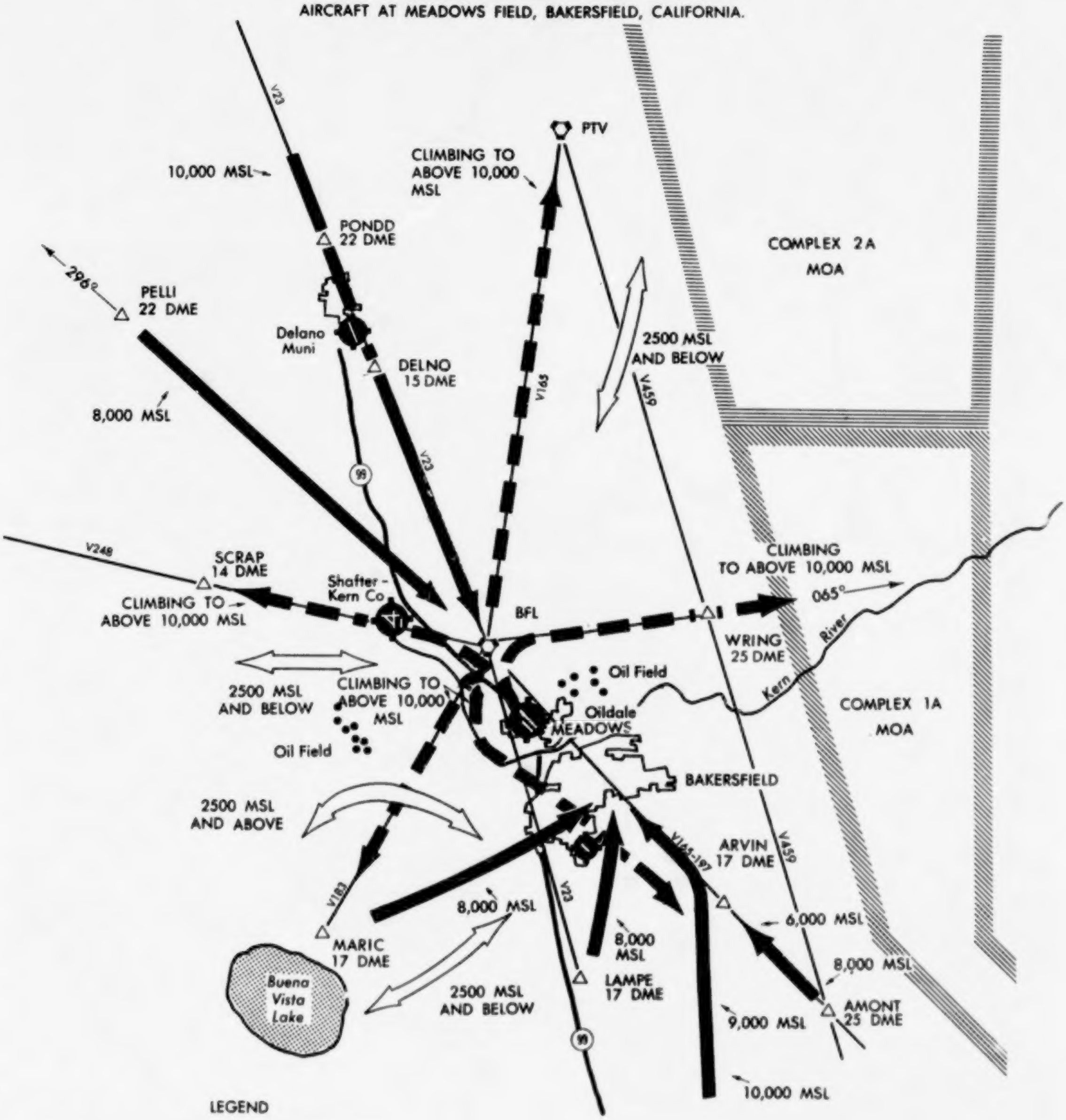
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BAKERSFIELD, CALIFORNIA

THIS CHART SHOWS THE ARRIVAL AND DEPARTURE ROUTES MOST FREQUENTLY USED BY HIGH PERFORMANCE AIRCRAFT AT MEADOWS FIELD, BAKERSFIELD, CALIFORNIA.


V23
10,000 MSL
PONDD
22 DME
296°
PELLI
22 DME
Delano
Muni
DELNO
15 DME
8,000 MSL
99
V23
PTV
CLIMBING TO
ABOVE 10,000
MSL
V165
2500 MSL
AND BELOW
V459
COMPLEX 2A
MOA
V248
SCRAP
14 DME
CLIMBING TO
ABOVE 10,000 MSL
Shafter -
Kern Co.
BFL
CLIMBING
TO ABOVE 10,000 MSL
065°
WRING
25 DME
Kern
River
2500 MSL
AND BELOW
CLIMBING TO
ABOVE 10,000
MSL
Oil Field
Oildale
MEADOWS
Oil Field
COMPLEX 1A
MOA
BAKERSFIELD
2500 MSL
AND ABOVE
V183
8,000 MSL
V23
V165-197
ARVIN
17 DME
V459
6,000 MSL
MARIC
17 DME
Buena
Vista
Lake
8,000
MSL
8,000 MSL
2500 MSL
AND BELOW
LAMPE
17 DME
AMONT
25 DME
9,000 MSL
99
10,000 MSL

LEGEND

▬▬▶ MAJOR JET ARRIVAL ROUTES

▬ ▬ ▶ MAJOR JET DEPARTURE ROUTES

⇔ SUGGESTED VFR ROUTES

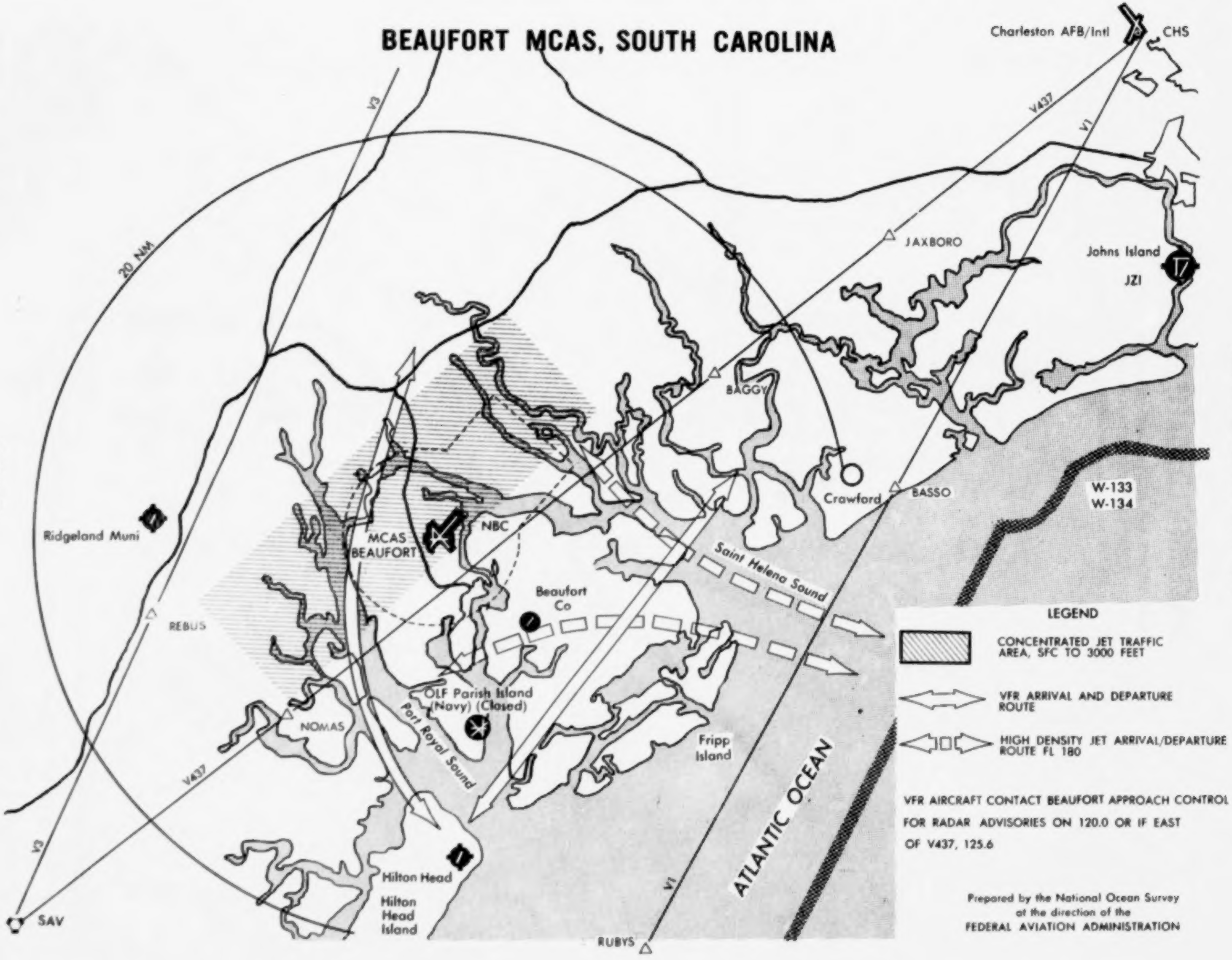
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

BEAUFORT MCAS, SOUTH CAROLINA


Charleston AFB/Intl
CHS
V437
V1
JAXBORO
Johns Island
JZI
BAGGY
Crawford
BASSO
W-133
W-134
20 NM
V3
Ridgeland Muni
MCAS
BEAUFORT
NBC
Beaufort
Co
Saint Helena Sound
REBUS
OLF Parish Island
(Navy) (Closed)
NOMAS
Port Royal Sound
Fripp
Island
ATLANTIC OCEAN
V437
V3
Hilton Head
Hilton
Head
Island
SAV
V1
RUBYS
LEGEND
▨ CONCENTRATED JET TRAFFIC AREA, SFC TO 3000 FEET
⇔ VFR ARRIVAL AND DEPARTURE ROUTE
⇔ HIGH DENSITY JET ARRIVAL/DEPARTURE ROUTE FL 180

VFR AIRCRAFT CONTACT BEAUFORT APPROACH CONTROL FOR RADAR ADVISORIES ON 120.0 OR IF EAST OF V437, 125.6

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

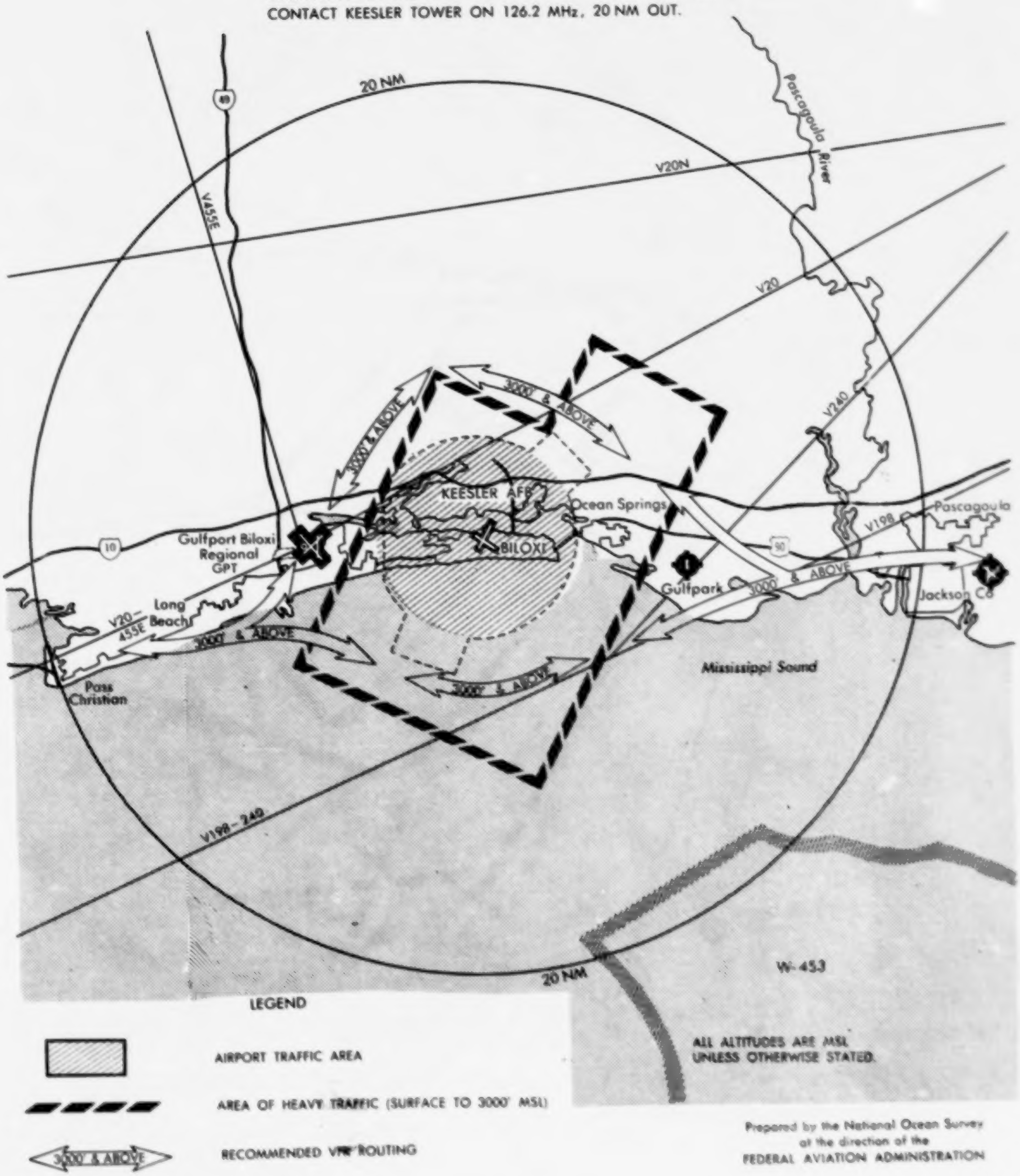
10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

BILOXI, KEESLER AFB, MISS.

IT IS RECOMMENDED THAT VFR TRAFFIC STAY AT OR ABOVE 3000 FEET, MSL, BECAUSE OF THE HIGH VOLUME OF TRAINING OPERATIONS IN THE AREA. FOR TRAFFIC ADVISORY SERVICE, CONTACT KEESLER TOWER ON 126.2 MHz, 20 NM OUT.


20 NM
49
V455E
V20N
Pascagoula River
V20
V240
3000' & ABOVE
3000' & ABOVE
KEESLER AFB
Ocean Springs
BILOXI
Gulfport Biloxi Regional GPT
10
90
Gulfpark
3000' & ABOVE
V198
Pascagoula
Jackson Co
V20–455E
Long Beach
3000' & ABOVE
3000' & ABOVE
Pass Christian
Mississippi Sound
V198–240
W-453
20 NM
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
LEGEND
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC (SURFACE TO 3000' MSL)
3000' & ABOVE
RECOMMENDED VFR ROUTING

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

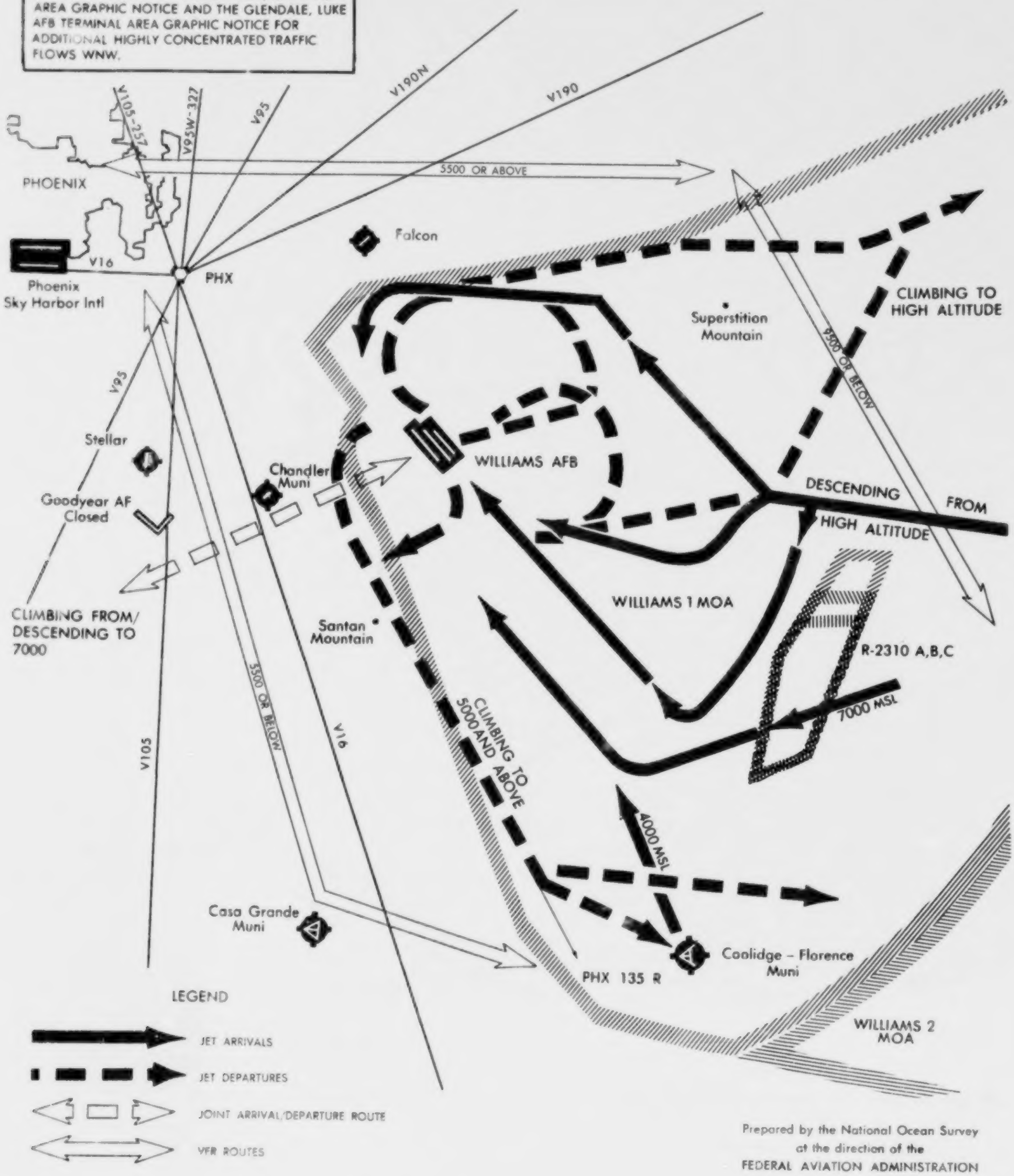
10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CHANDLER, WILLIAMS AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE WILLIAMS AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 120.4.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW.


V105-257
V95W-327
V95
V190N
V190
5500 OR ABOVE
PHOENIX
V16
PHX
Phoenix Sky Harbor Intl
Falcon
Superstition Mountain
CLIMBING TO HIGH ALTITUDE
9500 OR BELOW
V95
Stellar
Chandler Muni
WILLIAMS AFB
Goodyear AF Closed
DESCENDING FROM HIGH ALTITUDE
CLIMBING FROM/ DESCENDING TO 7000
WILLIAMS 1 MOA
Santan Mountain
R-2310 A,B,C
7000 MSL
3500 OR BELOW
V16
V105
CLIMBING TO 5000 AND ABOVE
4000 MSL
Casa Grande Muni
Coolidge - Florence Muni
PHX 135 R
WILLIAMS 2 MOA
LEGEND
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

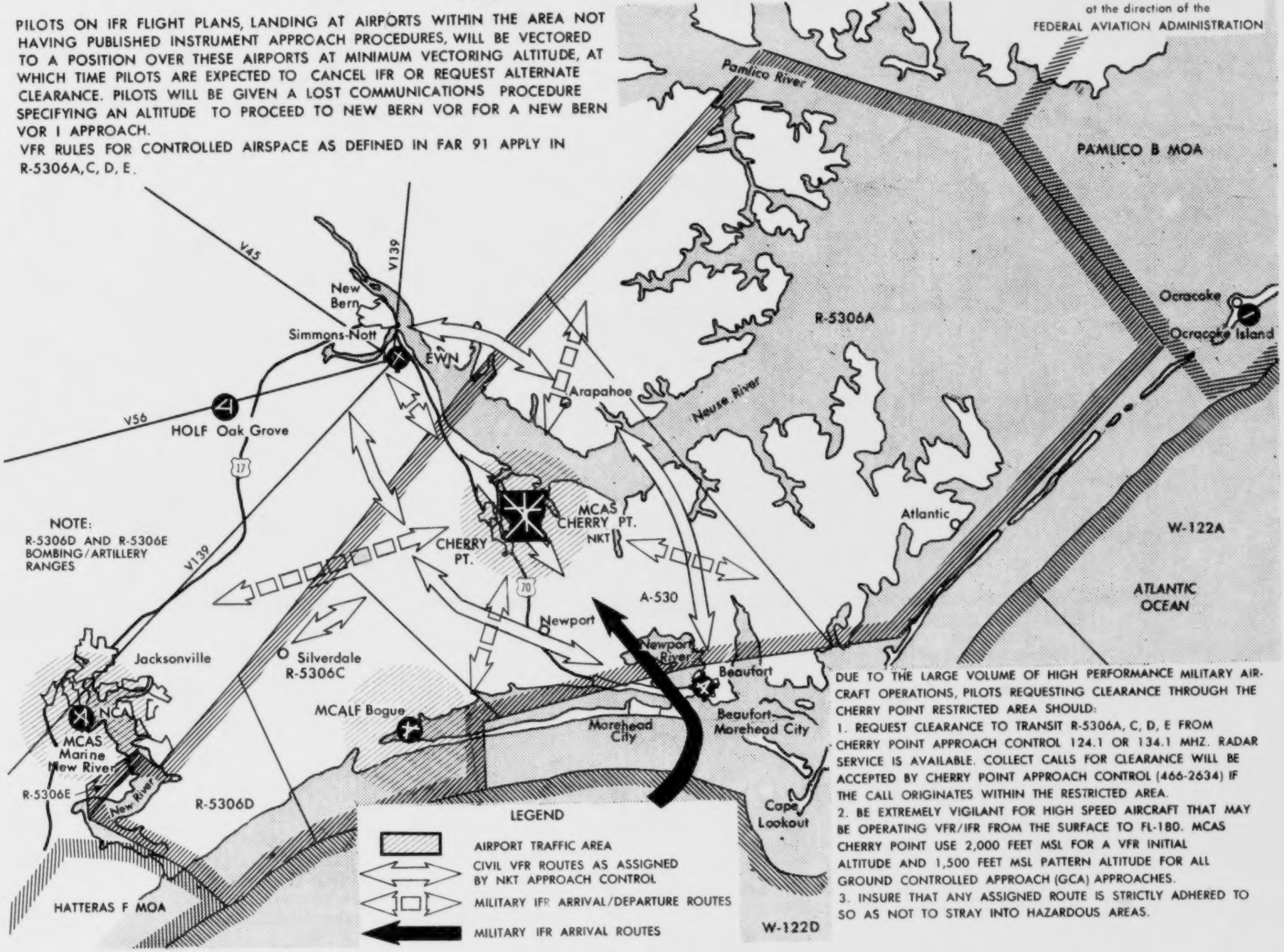
10 JUL 1980

CHERRY POINT MCAS, N.C.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

PILOTS ON IFR FLIGHT PLANS, LANDING AT AIRPORTS WITHIN THE AREA NOT HAVING PUBLISHED INSTRUMENT APPROACH PROCEDURES, WILL BE VECTORED TO A POSITION OVER THESE AIRPORTS AT MINIMUM VECTORING ALTITUDE, AT WHICH TIME PILOTS ARE EXPECTED TO CANCEL IFR OR REQUEST ALTERNATE CLEARANCE. PILOTS WILL BE GIVEN A LOST COMMUNICATIONS PROCEDURE SPECIFYING AN ALTITUDE TO PROCEED TO NEW BERN VOR FOR A NEW BERN VOR I APPROACH.

VFR RULES FOR CONTROLLED AIRSPACE AS DEFINED IN FAR 91 APPLY IN R-5306A, C, D, E.


Pamlico River
PAMLICO B MOA
R-5306A
Neuse River
Ocracoke
Ocracoke Island
W-122A
ATLANTIC OCEAN
Atlantic
New Bern
V139
V45
Simmons-Nott
EWN
Arapahoe
V56
HOLF Oak Grove
17
MCAS CHERRY PT.
NKT
CHERRY PT.
70
A-530
Newport
Newport River
Beaufort
Beaufort-Morehead City
Morehead City
Cape Lookout
W-122D
Jacksonville
Silverdale
R-5306C
MCALF Bogue
NCA
MCAS Marine New River
R-5306E
New River
R-5306D
HATTERAS F MOA
LEGEND
AIRPORT TRAFFIC AREA
CIVIL VFR ROUTES AS ASSIGNED BY NKT APPROACH CONTROL
MILITARY IFR ARRIVAL/DEPARTURE ROUTES
MILITARY IFR ARRIVAL ROUTES

NOTE:
R-5306D AND R-5306E BOMBING/ARTILLERY RANGES

DUE TO THE LARGE VOLUME OF HIGH PERFORMANCE MILITARY AIRCRAFT OPERATIONS, PILOTS REQUESTING CLEARANCE THROUGH THE CHERRY POINT RESTRICTED AREA SHOULD:

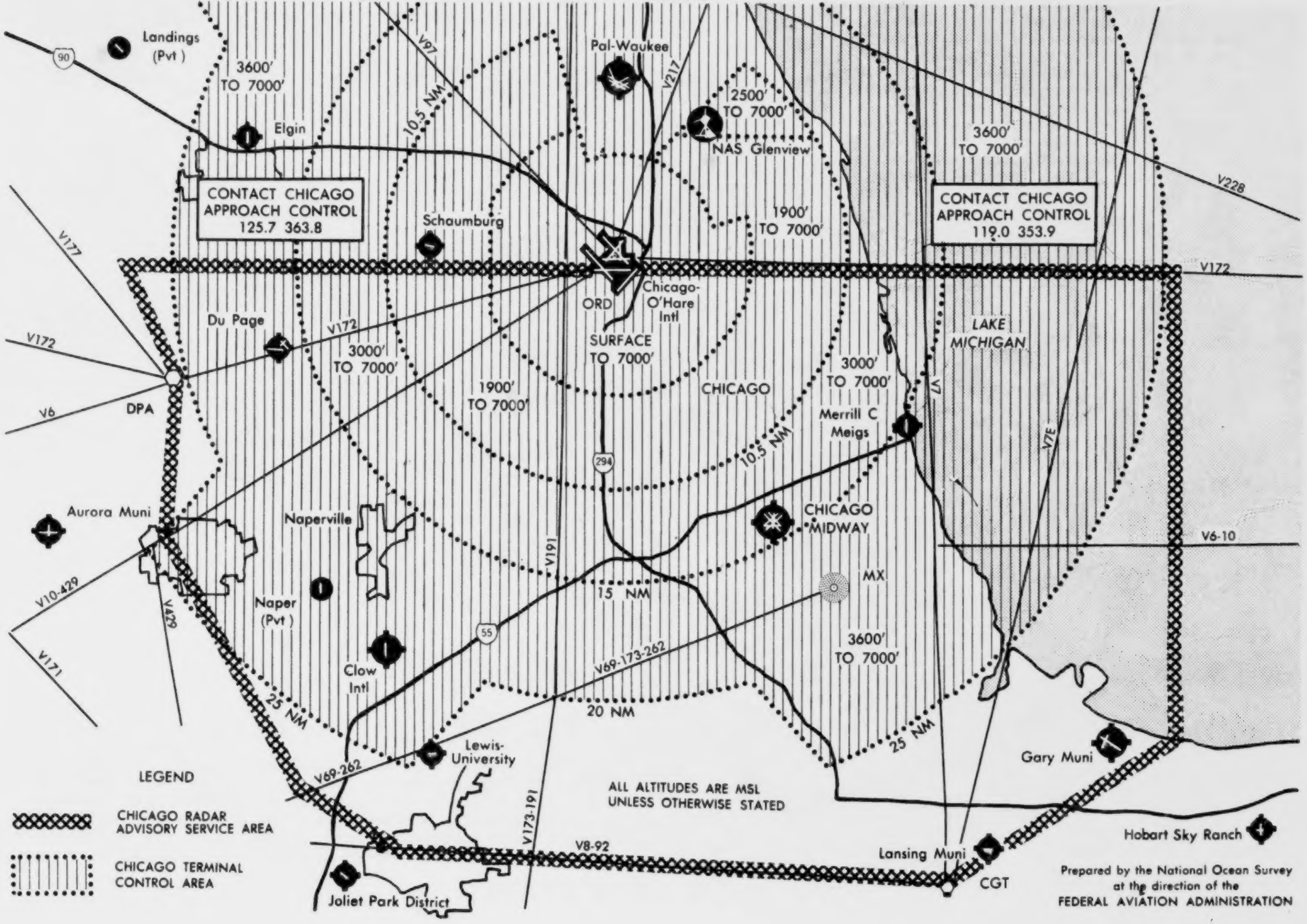
1. REQUEST CLEARANCE TO TRANSIT R-5306A, C, D, E FROM CHERRY POINT APPROACH CONTROL 124.1 OR 134.1 MHZ. RADAR SERVICE IS AVAILABLE. COLLECT CALLS FOR CLEARANCE WILL BE ACCEPTED BY CHERRY POINT APPROACH CONTROL (466-2634) IF THE CALL ORIGINATES WITHIN THE RESTRICTED AREA.
2. BE EXTREMELY VIGILANT FOR HIGH SPEED AIRCRAFT THAT MAY BE OPERATING VFR/IFR FROM THE SURFACE TO FL-180. MCAS CHERRY POINT USE 2,000 FEET MSL FOR A VFR INITIAL ALTITUDE AND 1,500 FEET MSL PATTERN ALTITUDE FOR ALL GROUND CONTROLLED APPROACH (GCA) APPROACHES.
3. INSURE THAT ANY ASSIGNED ROUTE IS STRICTLY ADHERED TO SO AS NOT TO STRAY INTO HAZARDOUS AREAS.

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

CHICAGO, ILLINOIS

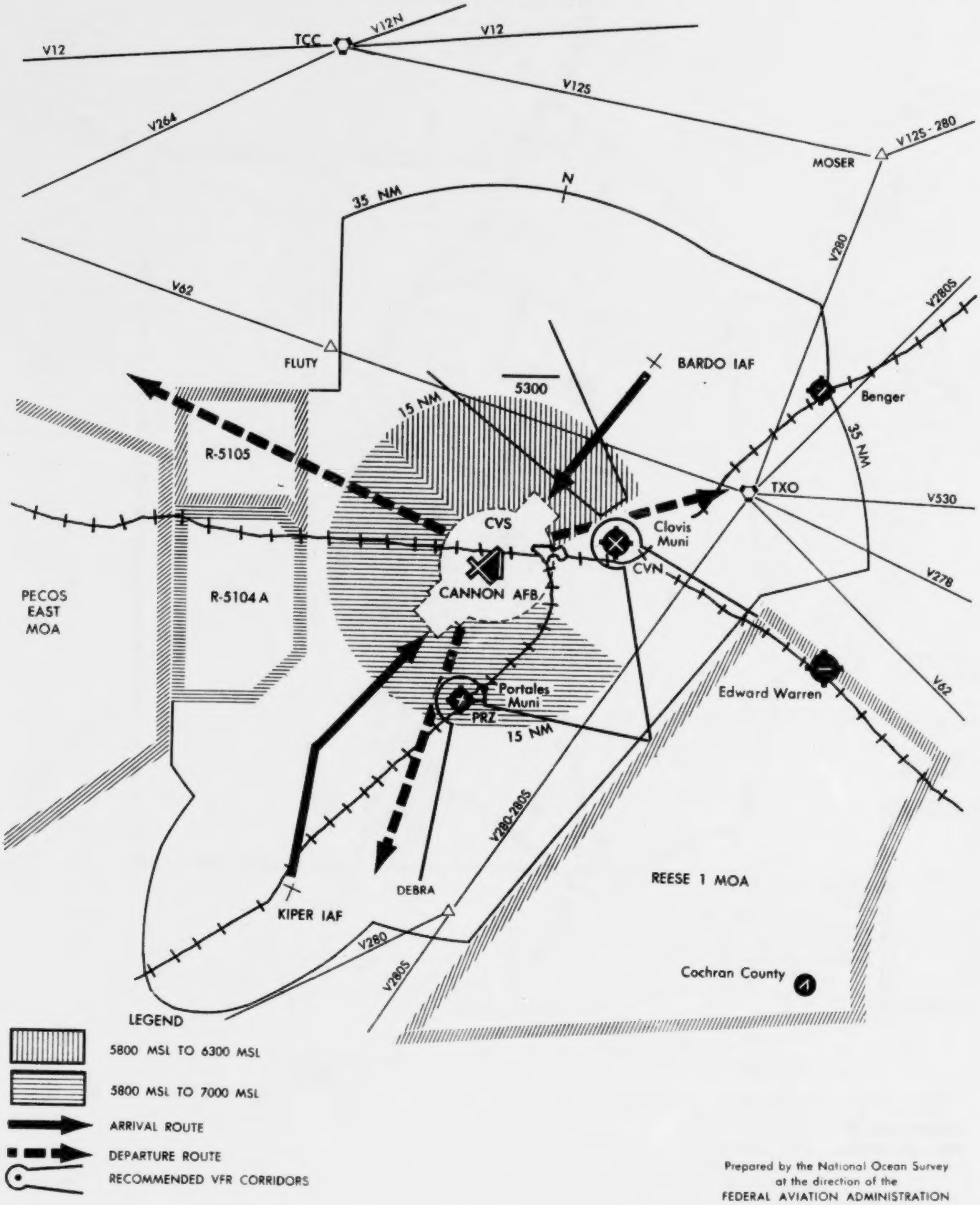
VFR PILOTS OPERATING ABOVE, BENEATH OR OUTSIDE OF THE TCA, IN THE HATCHED AREA DEPICTED, ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR ADVISORY SERVICE ON 126.8 MHz. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.


Landings (Pvt)
90
3600' TO 7000'
Elgin
V97
10.5 NM
Pal-Waukee
V217
2500' TO 7000'
NAS Glenview
3600' TO 7000'
V228
CONTACT CHICAGO APPROACH CONTROL 125.7 363.8
Schaumburg
1900' TO 7000'
CONTACT CHICAGO APPROACH CONTROL 119.0 353.9
V177
V172
Chicago-O'Hare Intl
ORD
Du Page
V172
SURFACE TO 7000'
LAKE MICHIGAN
V172
3000' TO 7000'
1900' TO 7000'
CHICAGO
3000' TO 7000'
V7
DPA
V6
Merrill C Meigs
V7E
294
10.5 NM
Aurora Muni
Naperville
CHICAGO MIDWAY
V6-10
V191
MX
V10-429
15 NM
Naper (Pvt)
55
V429
3600' TO 7000'
Clow Intl
V69-173-262
V171
25 NM
20 NM
25 NM
Gary Muni
Lewis-University
V69-262
LEGEND
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
V173-191
CHICAGO RADAR ADVISORY SERVICE AREA
Hobart Sky Ranch
V8-92
Lansing Muni
CHICAGO TERMINAL CONTROL AREA
CGT
Joliet Park District

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

CLOVIS, NEW MEXICO
CANNON AFB

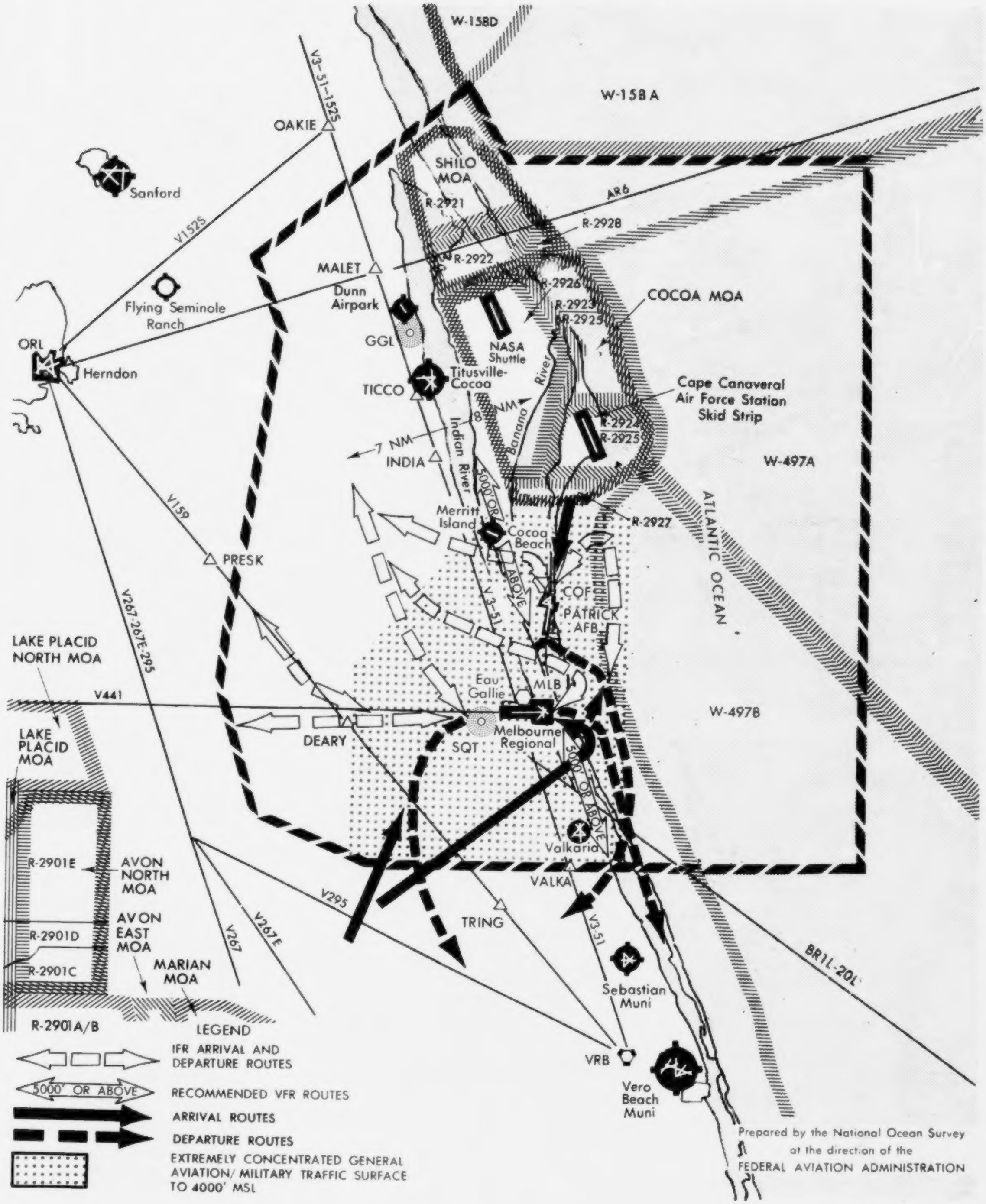

V12
TCC
V12N
V12
V264
V12S
MOSER
V12S - 280
35 NM
N
V280
V62
V280S
FLUTY
BARDO IAF
5300
15 NM
Benger
R-5105
35 NM
TXO
V530
CVS
Clovis Muni
CVN
V278
PECOS EAST MOA
R-5104 A
CANNON AFB
Edward Warren
V62
Portales Muni
PRZ
15 NM
V280-280S
REESE 1 MOA
KIPER IAF
DEBRA
V280
V280S
Cochran County
LEGEND
5800 MSL TO 6300 MSL
5800 MSL TO 7000 MSL
ARRIVAL ROUTE
DEPARTURE ROUTE
RECOMMENDED VFR CORRIDORS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

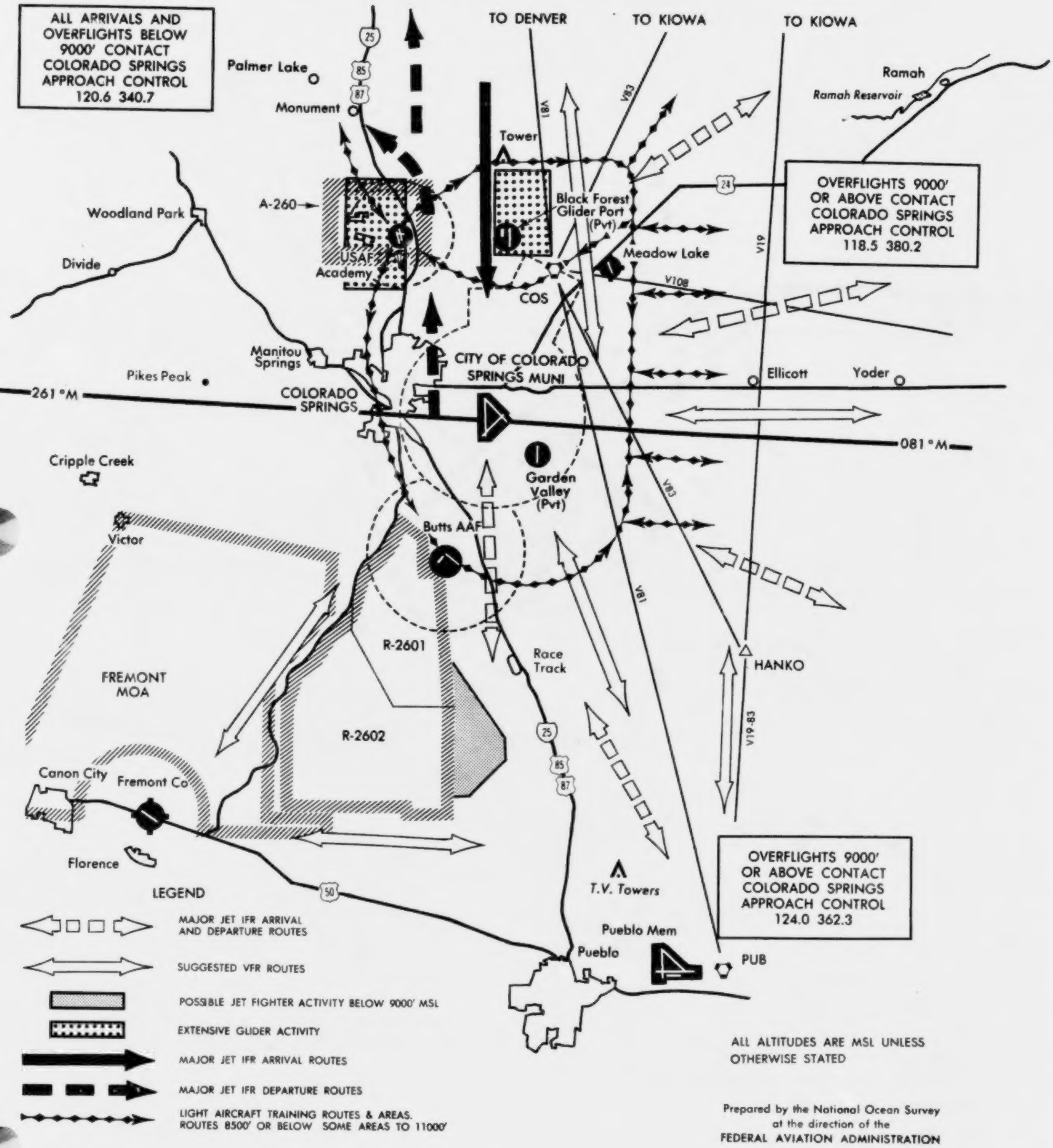
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COCOA BEACH, PATRICK AFB, FLA.


W-158D
W-158 A
V3-51-152S
OAKIE
Sanford
SHILO MOA
R-2921
AR6
R-2928
V152S
R-2922
MALET
R-2926
COCOA MOA
Flying Seminole Ranch
Dunn Airpark
R-2923
R-2925
ORL
Herndon
GGL
NASA Shuttle
Titusville-Cocoa
River
TICCO
Banana
Cape Canaveral Air Force Station Skid Strip
8 NM
R-2924
R-2925
7 NM
Indian River
INDIA
W-497A
V159
5000' OR ABOVE
Merritt Island
Cocoa Beach
R-2927
ATLANTIC OCEAN
PRESK
V3-51
COF
PATRICK AFB
V267-267E-295
LAKE PLACID NORTH MOA
Eau Gallie
MLB
V441
W-497B
LAKE PLACID MOA
DEARY
SQT
Melbourne Regional
5000' OR ABOVE
Valkaria
R-2901E
AVON NORTH MOA
VALKA
V295
AVON EAST MOA
R-2901D
V267E
TRING
V3-51
R-2901C
V267
MARIAN MOA
BR11-201
Sebastian Muni
R-2901A/B
LEGEND
IFR ARRIVAL AND DEPARTURE ROUTES
5000' OR ABOVE
RECOMMENDED VFR ROUTES
ARRIVAL ROUTES
DEPARTURE ROUTES
EXTREMELY CONCENTRATED GENERAL AVIATION/ MILITARY TRAFFIC SURFACE TO 4000' MSL
VRB
Vero Beach Muni

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

COLORADO SPRINGS, COLORADO


ALL ARRIVALS AND OVERFLIGHTS BELOW 9000′ CONTACT COLORADO SPRINGS APPROACH CONTROL 120.6 340.7
TO DENVER
TO KIOWA
TO KIOWA
Palmer Lake
Monument
Ramah
Ramah Reservoir
25
85
87
V81
V83
Tower
24
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 118.5 380.2
Woodland Park
A-260
Black Forest Glider Port (Pvt)
Meadow Lake
USAF Academy
Divide
V19
V108
COS
Manitou Springs
CITY OF COLORADO SPRINGS MUNI
Pikes Peak
Ellicott
Yoder
261°M
COLORADO SPRINGS
081°M
Cripple Creek
Garden Valley (Pvt)
V83
Victor
Butts AAF
V81
R-2601
Race Track
HANKO
FREMONT MOA
V19-83
R-2602
25
85
87
Canon City
Fremont Co
Florence
50
T.V. Towers
OVERFLIGHTS 9000′ OR ABOVE CONTACT COLORADO SPRINGS APPROACH CONTROL 124.0 362.3
Pueblo Mem
Pueblo
PUB
LEGEND
MAJOR JET IFR ARRIVAL AND DEPARTURE ROUTES
SUGGESTED VFR ROUTES
POSSIBLE JET FIGHTER ACTIVITY BELOW 9000′ MSL
EXTENSIVE GLIDER ACTIVITY
MAJOR JET IFR ARRIVAL ROUTES
MAJOR JET IFR DEPARTURE ROUTES
LIGHT AIRCRAFT TRAINING ROUTES & AREAS. ROUTES 8500′ OR BELOW SOME AREAS TO 11000′

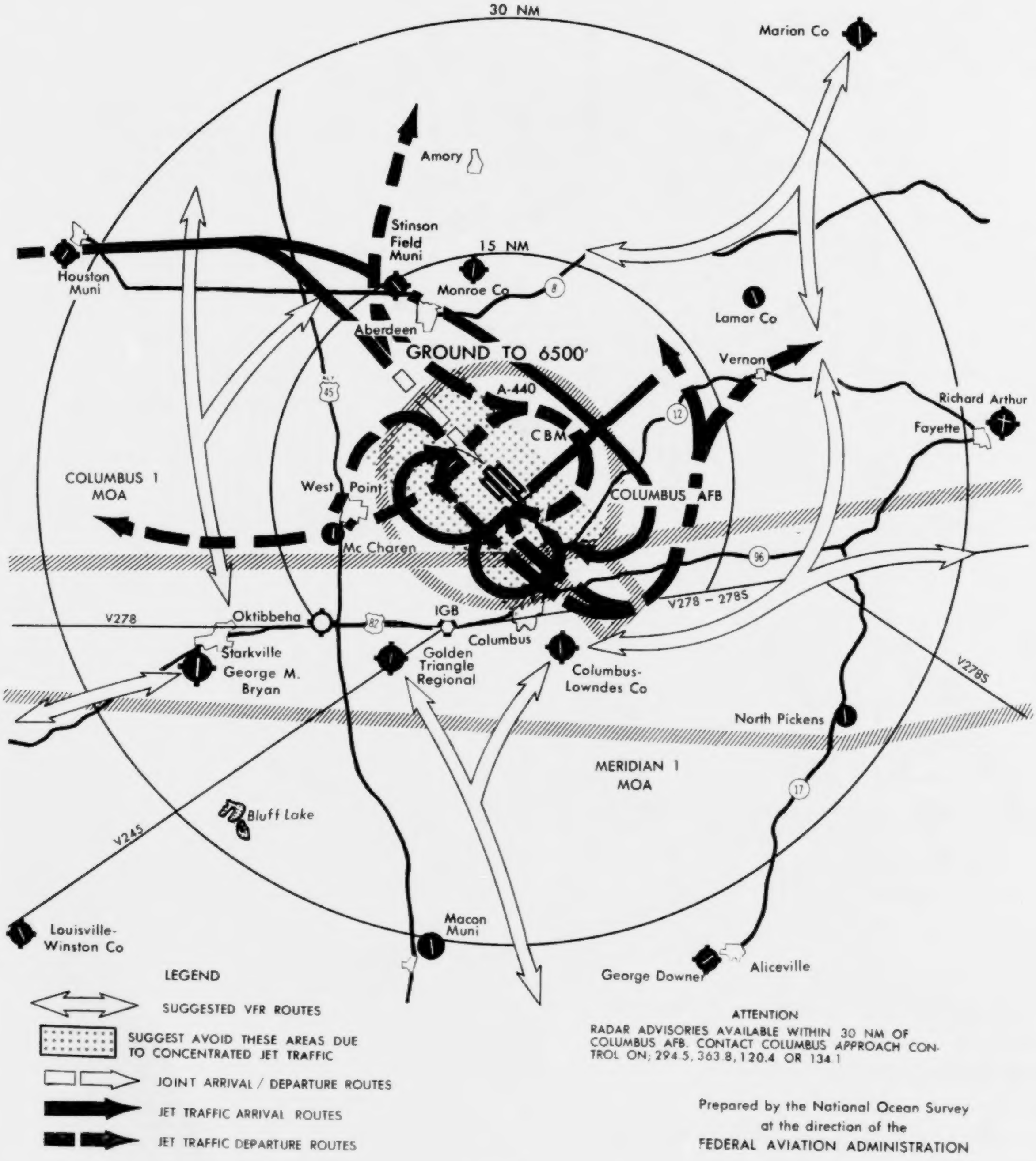
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

COLUMBUS AFB, MISSISSIPPI


30 NM
15 NM
Marion Co
Amory
Stinson Field Muni
Monroe Co
8
Houston Muni
Aberdeen
Lamar Co
GROUND TO 6500'
A-440
Vernon
45
CBM
12
Richard Arthur
Fayette
COLUMBUS 1 MOA
West Point
COLUMBUS AFB
Mc Charen
96
V278 – 278S
V278
Oktibbeha
82
IGB
Columbus
Starkville
George M. Bryan
Golden Triangle Regional
Columbus-Lowndes Co
V278S
North Pickens
MERIDIAN 1 MOA
17
Bluff Lake
V245
Louisville-Winston Co
Macon Muni
George Downer
Aliceville
LEGEND
SUGGESTED VFR ROUTES
SUGGEST AVOID THESE AREAS DUE TO CONCENTRATED JET TRAFFIC
JOINT ARRIVAL / DEPARTURE ROUTES
JET TRAFFIC ARRIVAL ROUTES
JET TRAFFIC DEPARTURE ROUTES

ATTENTION

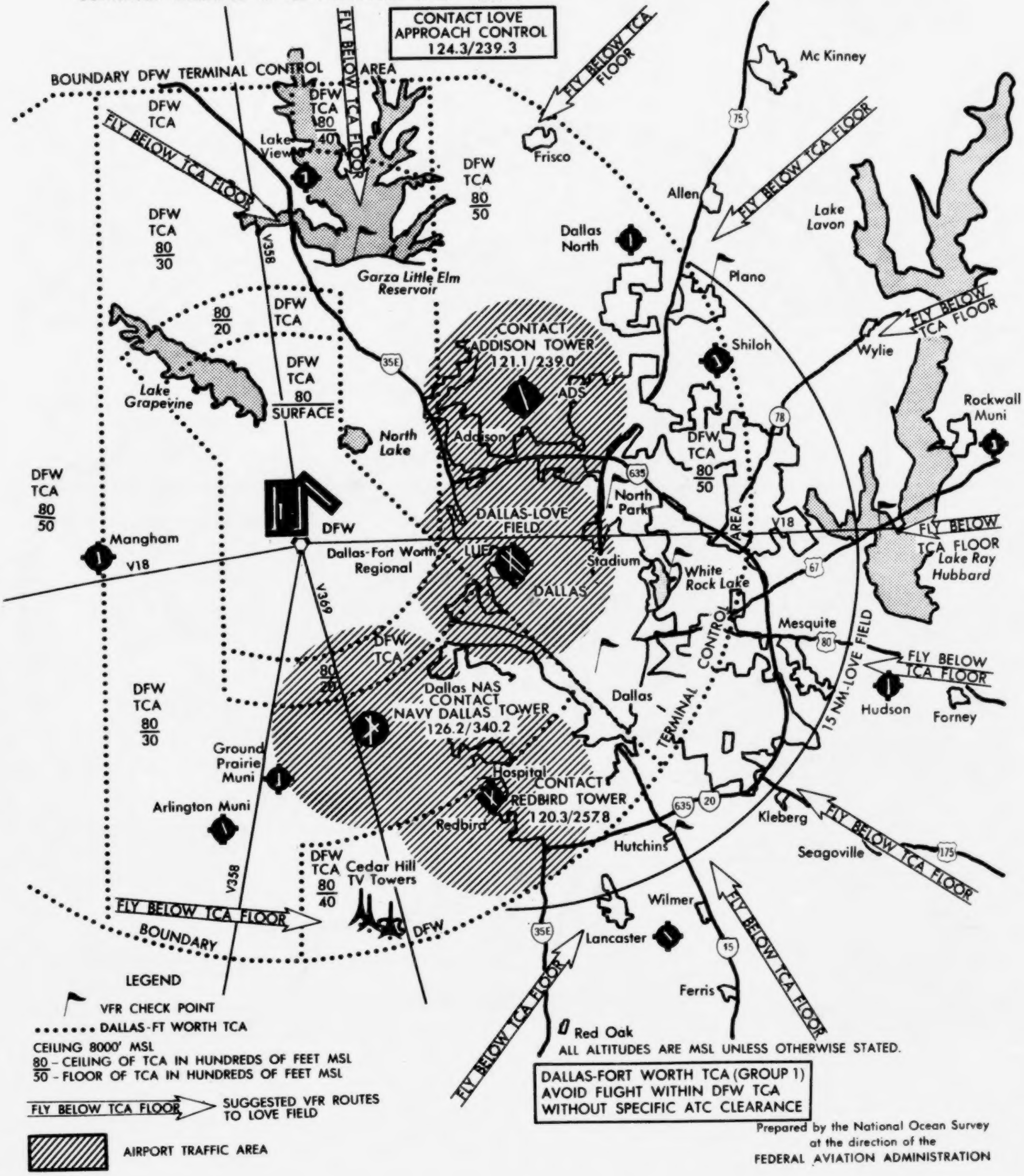
RADAR ADVISORIES AVAILABLE WITHIN 30 NM OF COLUMBUS AFB. CONTACT COLUMBUS APPROACH CONTROL ON; 294.5, 363.8, 120.4 OR 134.1

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

DALLAS LOVE FIELD, TEXAS

LOVE TOWER WILL PROVIDE RADAR SERVICE WITHIN 15 MILES OF LOVE FIELD EXCLUDING THE DFW TCA, ADDISON, REDBIRD, AND NAS DALLAS AIRPORT TRAFFIC AREAS. REGIONAL APPROACH CONTROL WILL PROVIDE RADAR SERVICE ELSEWHERE. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUED VIGILANCE TO SEE AND AVOID OTHER TRAFFIC.


CONTACT LOVE APPROACH CONTROL 124.3/239.3
BOUNDARY DFW TERMINAL CONTROL AREA
FLY BELOW TCA FLOOR
DFW TCA 80/40
DFW TCA 80/50
DFW TCA 80/30
DFW TCA 80/20
DFW TCA 80 SURFACE
Lake View
V358
Garza Little Elm Reservoir
Mc Kinney
75
Frisco
Allen
Dallas North
Lake Lavon
Plano
Shiloh
Wylie
Lake Grapevine
35E
CONTACT ADDISON TOWER 121.1/239.0
ADS
Addison
North Lake
78
Rockwall Muni
635
North Park
DALLAS-LOVE FIELD
LUE
DALLAS
Stadium
White Rock Lake
V18
67
Lake Ray Hubbard
Mangham
DFW
Dallas-Fort Worth Regional
V369
Mesquite
80
15 NM-LOVE FIELD
TERMINAL CONTROL AREA
Hudson
Forney
Dallas NAS CONTACT NAVY DALLAS TOWER 126.2/340.2
Dallas
Grand Prairie Muni
Arlington Muni
Hospital
CONTACT REDBIRD TOWER 120.3/257.8
Redbird
20
Kleberg
Hutchins
Seagoville
175
Cedar Hill TV Towers
Wilmer
BOUNDARY
Lancaster
15
Ferris
Red Oak

LEGEND

VFR CHECK POINT

•••••• DALLAS-FT WORTH TCA

CEILING 8000′ MSL

80 – CEILING OF TCA IN HUNDREDS OF FEET MSL

50 – FLOOR OF TCA IN HUNDREDS OF FEET MSL

FLY BELOW TCA FLOOR – SUGGESTED VFR ROUTES TO LOVE FIELD

▨ AIRPORT TRAFFIC AREA

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

DALLAS-FORT WORTH TCA (GROUP 1)
AVOID FLIGHT WITHIN DFW TCA
WITHOUT SPECIFIC ATC CLEARANCE

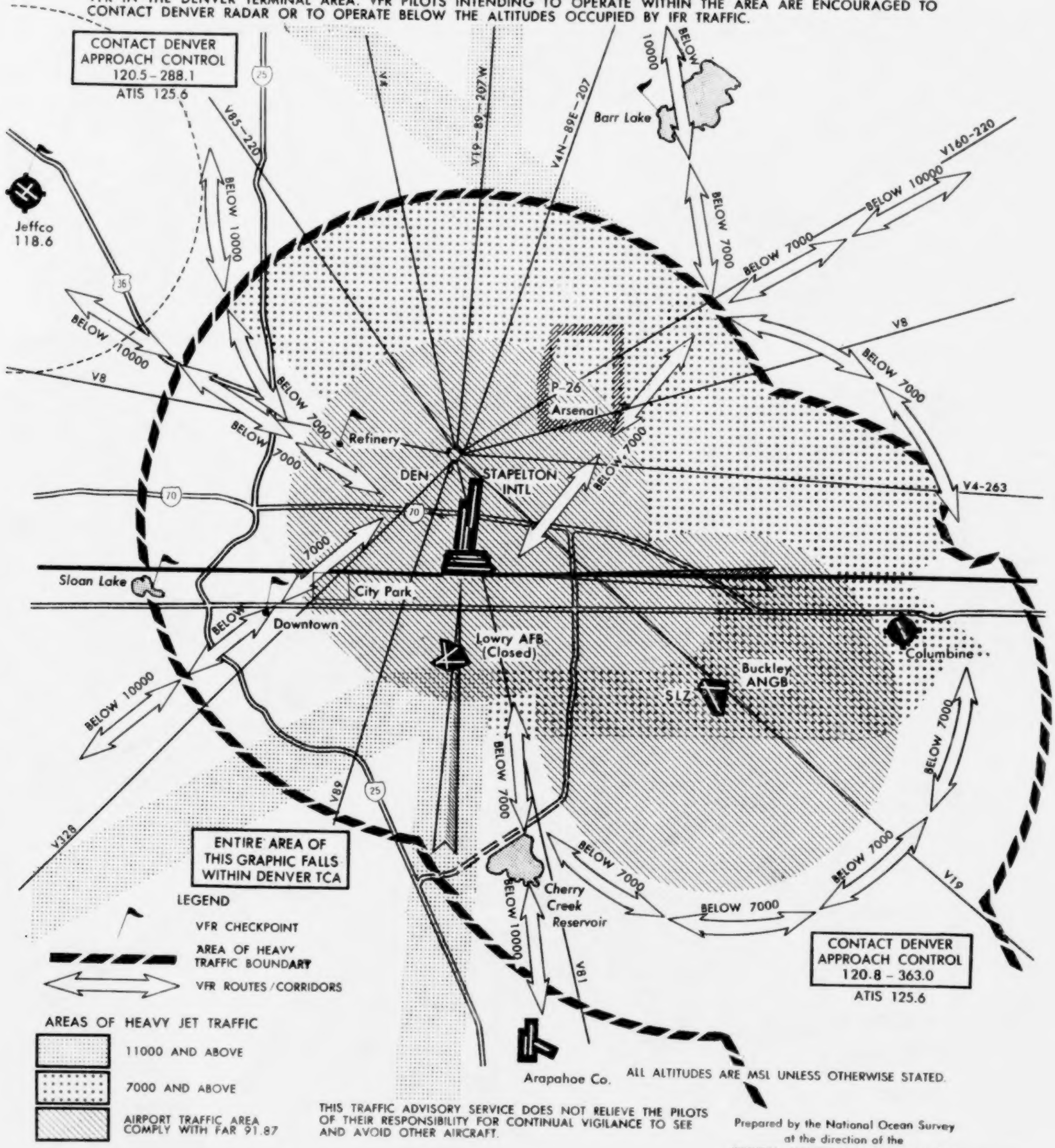
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

DENVER, COLORADO

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DENVER TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT DENVER RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.



CONTACT DENVER APPROACH CONTROL
120.5 - 288.1
ATIS 125.6
Jeffco
118.6
V85-220
V8
V19-89-207W
V4N-89E-207
BELOW 10000
Barr Lake
V160-220
BELOW 10000
BELOW 7000
BELOW 7000
BELOW 10000
36
25
BELOW 10000
V8
BELOW 7000
BELOW 7000
BELOW 7000
P-26
Arsenal
V8
BELOW 7000
Refinery
DEN
STAPELTON INTL
BELOW 7000
V4-263
70
70
7000
Sloan Lake
City Park
BELOW
Downtown
Lowry AFB (Closed)
Columbine
Buckley ANGB
SLZ
BELOW 10000
BELOW 7000
BELOW 7000
V89
25
V328
BELOW 7000
BELOW 7000
BELOW 7000
V19
ENTIRE AREA OF THIS GRAPHIC FALLS WITHIN DENVER TCA
BELOW 10000
Cherry Creek Reservoir
V81
BELOW 7000
CONTACT DENVER APPROACH CONTROL
120.8 - 363.0
ATIS 125.6
Arapahoe Co.
LEGEND
VFR CHECKPOINT
AREA OF HEAVY TRAFFIC BOUNDARY
VFR ROUTES/CORRIDORS
AREAS OF HEAVY JET TRAFFIC
11000 AND ABOVE
7000 AND ABOVE
AIRPORT TRAFFIC AREA COMPLY WITH FAR 91.87

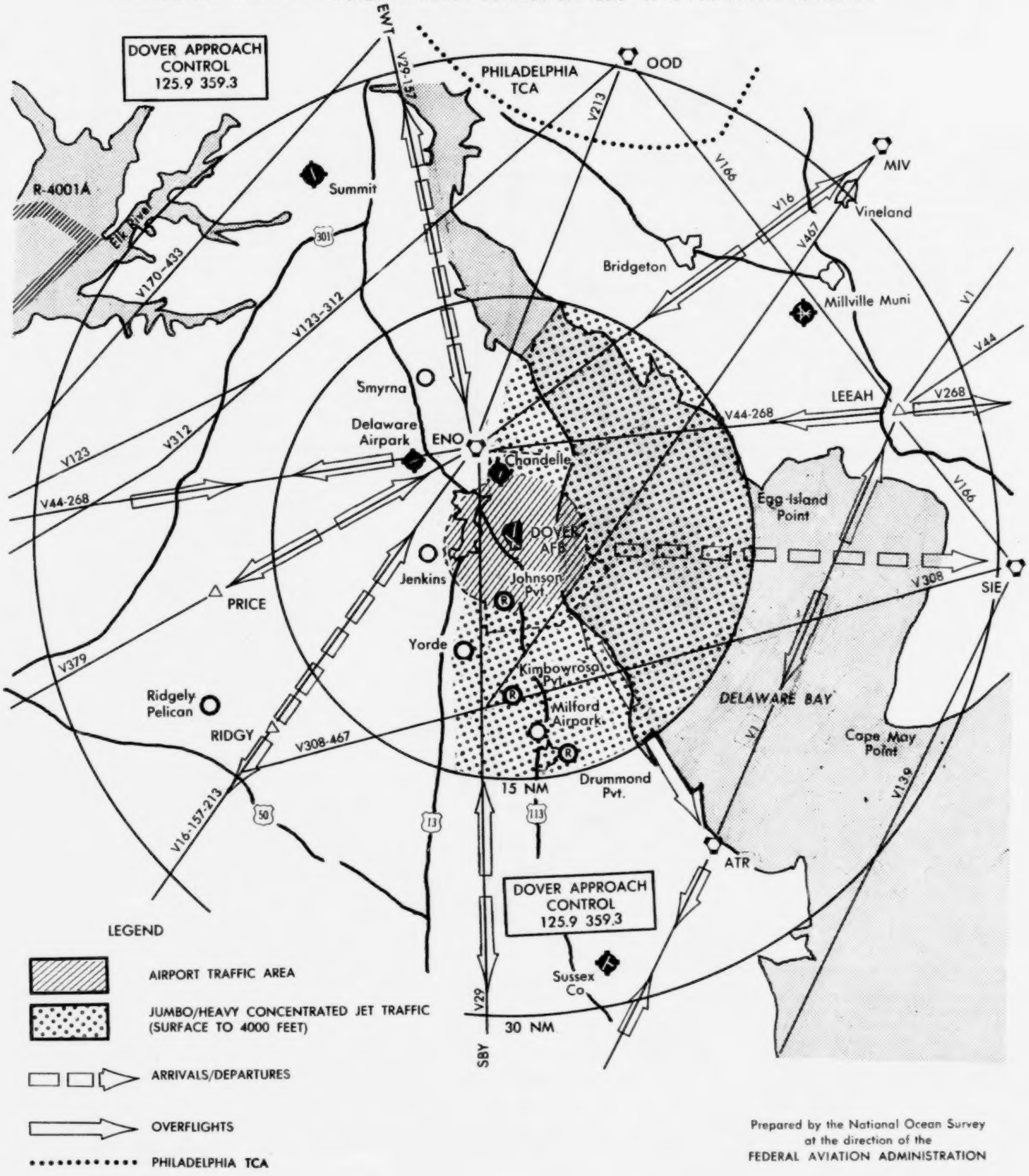
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

DOVER AFB, DELAWARE

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE DOVER RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT DOVER APPROACH CONTROL ON 125.9 - 359.3 FOR TRAFFIC ADVISORIES.

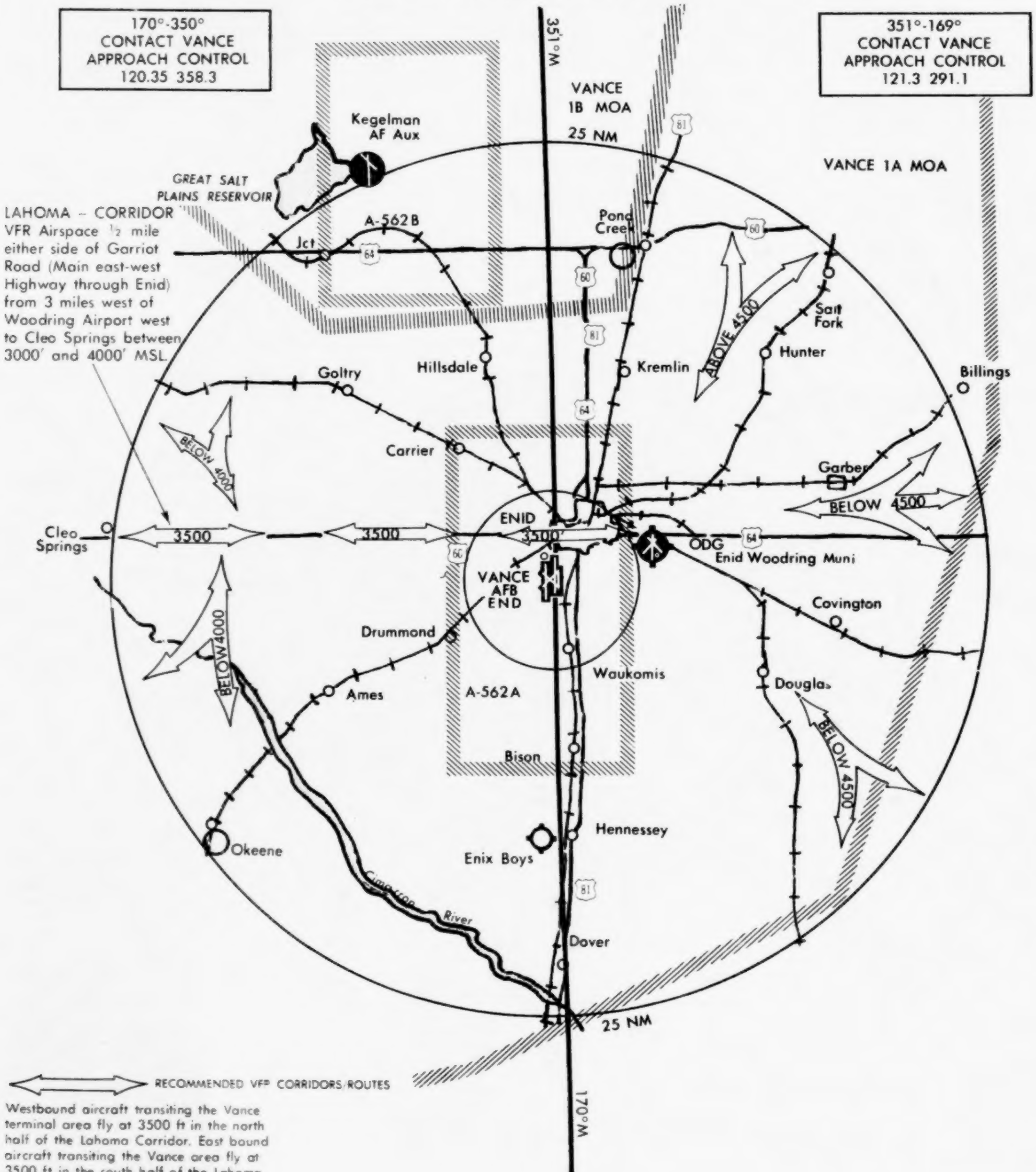

DOVER APPROACH CONTROL 125.9 359.3
EWT
V29-157
PHILADELPHIA TCA
OOD
V213
V166
MIV
V16
Vineland
V467
R-4001A
Elk River
Summit
301
V170-433
V123-312
Bridgeton
Millville Muni
V1
V44
Smyrna
LEEAH
V268
V44-268
Delaware Airpark
ENO
Chandelle
V123
V312
V44-268
Egg Island Point
V166
DOVER AFB
Jenkins
Johnson Pvt.
SIE
V308
PRICE
Yorde
V379
Kimbowrosa Pvt.
Ridgely Pelican
DELAWARE BAY
Milford Airpark
RIDGY
V308-467
V1
Cape May Point
15 NM
Drummond Pvt.
V139
V16-157-213
50
13
113
ATR
DOVER APPROACH CONTROL 125.9 359.3
Sussex Co.
V29
30 NM
SBY
LEGEND
AIRPORT TRAFFIC AREA
JUMBO/HEAVY CONCENTRATED JET TRAFFIC (SURFACE TO 4000 FEET)
ARRIVALS/DEPARTURES
OVERFLIGHTS
PHILADELPHIA TCA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ENID - VANCE, OKLAHOMA


351°M
VANCE
1B MOA
25 NM
Kegelman
AF Aux
GREAT SALT
PLAINS RESERVOIR
VANCE 1A MOA
81
Jct
64
A-562B
Pond
Creek
60
60
81
Salt
Fork
Hunter
ABOVE 4500
Billings
Goltry
Hillsdale
Kremlin
64
BELOW 4000
Carrier
Garber
BELOW 4500
Cleo
Springs
3500
3500
ENID
3500'
66
ODG
64
Enid Woodring Muni
VANCE
AFB
END
Covington
Drummond
BELOW 4000
Ames
A-562A
Waukomis
Douglas
BELOW 4500
Bison
Okeene
Hennessey
Enix Boys
81
Cimarron River
Dover
25 NM
170°M

170°-350°
CONTACT VANCE
APPROACH CONTROL
120.35 358.3

351°-169°
CONTACT VANCE
APPROACH CONTROL
121.3 291.1

LAHOMA – CORRIDOR
VFR Airspace ½ mile either side of Garriot Road (Main east-west Highway through Enid) from 3 miles west of Woodring Airport west to Cleo Springs between 3000′ and 4000′ MSL.

⟺ RECOMMENDED VFR CORRIDORS/ROUTES

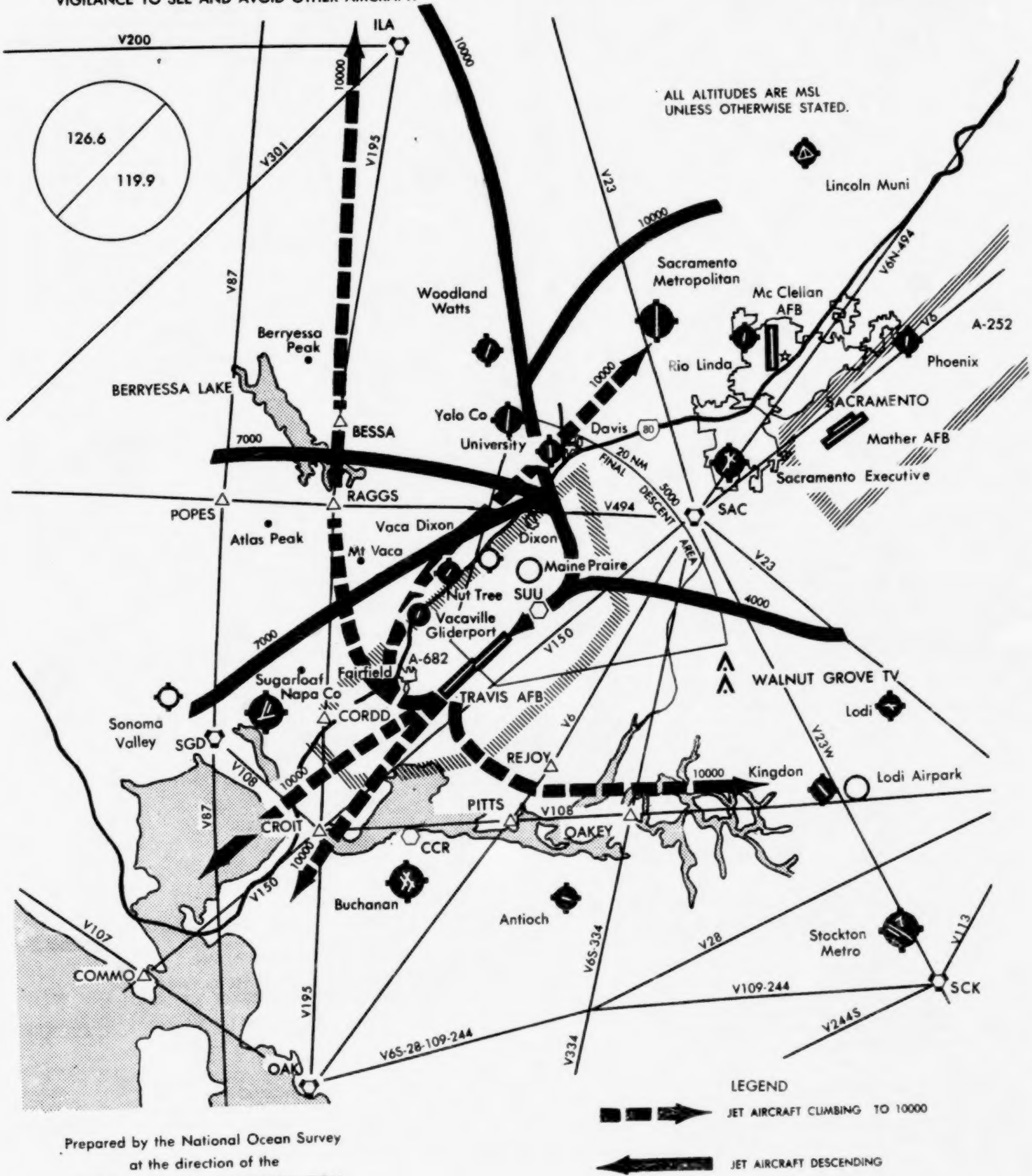
Westbound aircraft transiting the Vance terminal area fly at 3500 ft in the north half of the Lahoma Corridor. East bound aircraft transiting the Vance area fly at 3500 ft in the south half of the Lahoma Corridor. For traffic advisories, contact Vance Approach Control.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FAIRFIELD, TRAVIS AFB, CALIF.

THIS CHART SHOWS CONCENTRATED IFR TRAFFIC FLOWS IN THE TRAVIS AFB AREA. IT HAS BEEN PREPARED TO ASSIST VFR PILOTS IN PLANNING FLIGHT IN THE AREA. VFR PILOTS INTENDING TO OPERATE IN THE AREA ARE ENCOURAGED TO CONTACT TRAVIS APPROACH CONTROL ON 119.9 OR 126.6 MHz FOR RADAR TRAFFIC ADVISORY SERVICE, WHICH WILL BE PROVIDED ON A WORKLOAD PERMITTING BASIS. TRAFFIC ADVISORY SERVICE DOES NOT RELEIVE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.


ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.
126.6
119.9
V200
ILA
10000
V195
V301
V87
V23
10000
Lincoln Muni
V6N-494
Sacramento Metropolitan
Mc Clellan AFB
A-252
Woodland Watts
Berryessa Peak
Rio Linda
Phoenix
10000
BERRYESSA LAKE
Yolo Co
BESSA
SACRAMENTO
Davis
80
Mather AFB
7000
University
20 NM FINAL
5000
DESCENT AREA
Sacramento Executive
RAGGS
POPES
V494
SAC
Atlas Peak
Vaca Dixon
Dixon
Mt Vaca
Maine Praire
V23
Nut Tree
SUU
4000
Vacaville Gliderport
V150
7000
A-682
Fairfield
Sugarloaf
Napa Co
TRAVIS AFB
WALNUT GROVE TV
Lodi
CORDD
Sonoma Valley
SGD
V6
V23W
REJOY
V108
10000
Kingdon
Lodi Airpark
PITTS
V108
V87
CROIT
OAKEY
10000
CCR
V150
Buchanan
Antioch
V107
V6S-334
V28
Stockton Metro
V113
COMMO
V109-244
SCK
V195
V244S
V6S-28-109-244
V334
OAK
LEGEND
JET AIRCRAFT CLIMBING TO 10000
JET AIRCRAFT DESCENDING

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

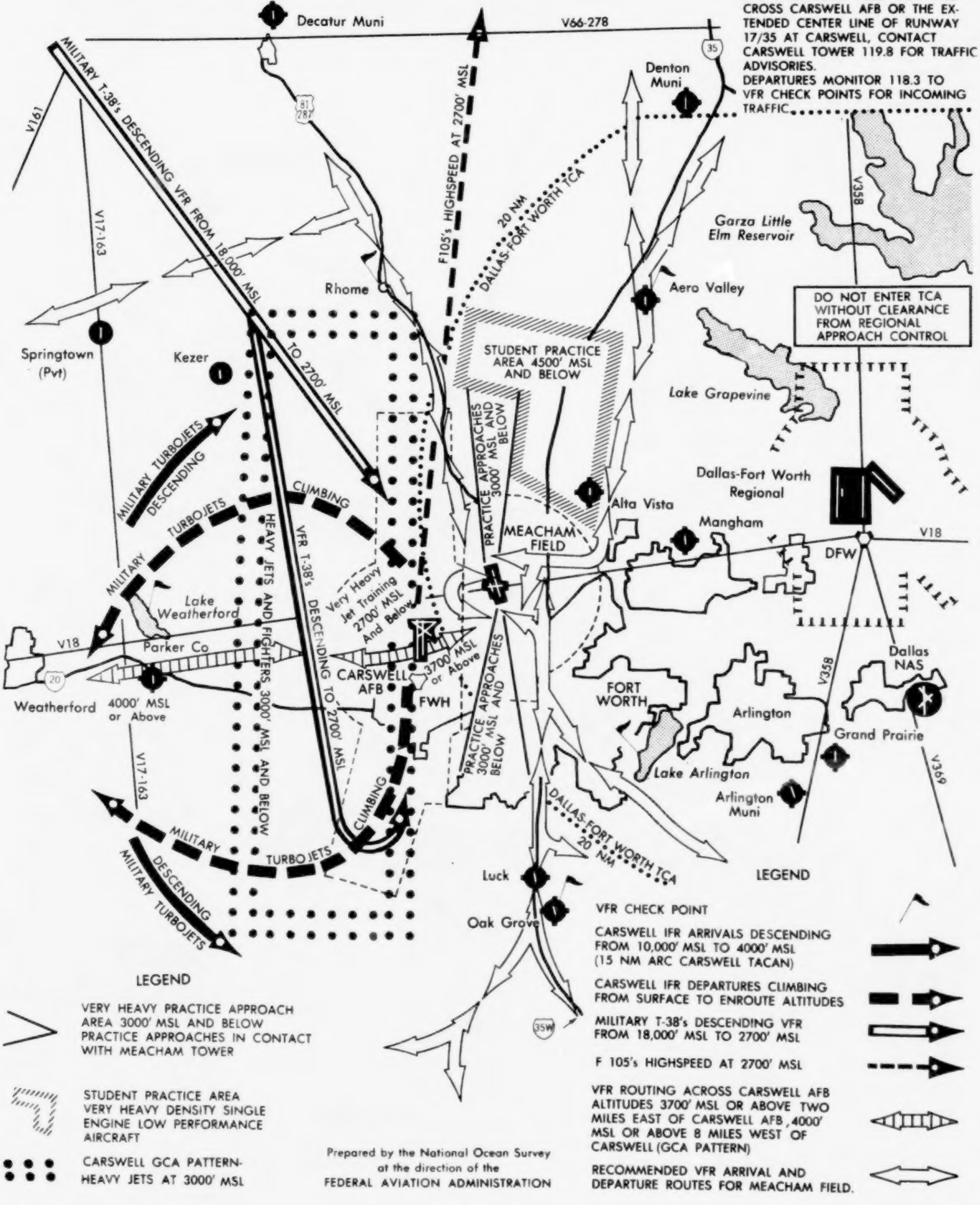
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

FORT WORTH, TEXAS
MEACHAM FIELD, CARSWELL AFB

AIRCRAFT REQUESTING RADAR ADVISORIES CONTACT REGIONAL APPROACH CONTROL 120.5.

ALL AIRCRAFT OPERATING TO AND FROM MEACHAM FIELD THAT WILL CROSS CARSWELL AFB OR THE EXTENDED CENTER LINE OF RUNWAY 17/35 AT CARSWELL, CONTACT CARSWELL TOWER 119.8 FOR TRAFFIC ADVISORIES.

DEPARTURES MONITOR 118.3 TO VFR CHECK POINTS FOR INCOMING TRAFFIC.


Decatur Muni
V66-278
35
Denton Muni
V161
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL
TO 2700' MSL
81
287
F105's HIGHSPEED AT 2700' MSL
20 NM
DALLAS-FORT WORTH TCA
V17-163
Garza Little Elm Reservoir
V358
Rhome
Aero Valley
DO NOT ENTER TCA WITHOUT CLEARANCE FROM REGIONAL APPROACH CONTROL
Springtown (Pvt)
Kezer
STUDENT PRACTICE AREA 4500' MSL AND BELOW
Lake Grapevine
PRACTICE APPROACHES 3000' MSL AND BELOW
MILITARY TURBOJETS DESCENDING
Dallas-Fort Worth Regional
CLIMBING
MILITARY TURBOJETS
Alta Vista
Mangham
MEACHAM FIELD
V18
DFW
HEAVY JETS AND FIGHTERS 3000' MSL AND BELOW
VFR T-38's DESCENDING TO 2700' MSL
Very Heavy Jet Training 2700' MSL And Below
Lake Weatherford
V18
Parker Co
3700' MSL or Above
CARSWELL AFB
FWH
Dallas NAS
20
Weatherford
4000' MSL or Above
FORT WORTH
Arlington
V358
Grand Prairie
V369
Lake Arlington
Arlington Muni
V17-163
PRACTICE APPROACHES 3000' MSL AND BELOW
CLIMBING
MILITARY TURBOJETS
MILITARY TURBOJETS DESCENDING
DALLAS-FORT WORTH TCA
20 NM
Luck
Oak Grove
35W
LEGEND
VFR CHECK POINT
CARSWELL IFR ARRIVALS DESCENDING FROM 10,000' MSL TO 4000' MSL (15 NM ARC CARSWELL TACAN)
CARSWELL IFR DEPARTURES CLIMBING FROM SURFACE TO ENROUTE ALTITUDES
MILITARY T-38's DESCENDING VFR FROM 18,000' MSL TO 2700' MSL
F 105's HIGHSPEED AT 2700' MSL
VFR ROUTING ACROSS CARSWELL AFB ALTITUDES 3700' MSL OR ABOVE TWO MILES EAST OF CARSWELL AFB, 4000' MSL OR ABOVE 8 MILES WEST OF CARSWELL (GCA PATTERN)
RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTES FOR MEACHAM FIELD.
LEGEND
VERY HEAVY PRACTICE APPROACH AREA 3000' MSL AND BELOW PRACTICE APPROACHES IN CONTACT WITH MEACHAM TOWER
STUDENT PRACTICE AREA VERY HEAVY DENSITY SINGLE ENGINE LOW PERFORMANCE AIRCRAFT
CARSWELL GCA PATTERN- HEAVY JETS AT 3000' MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

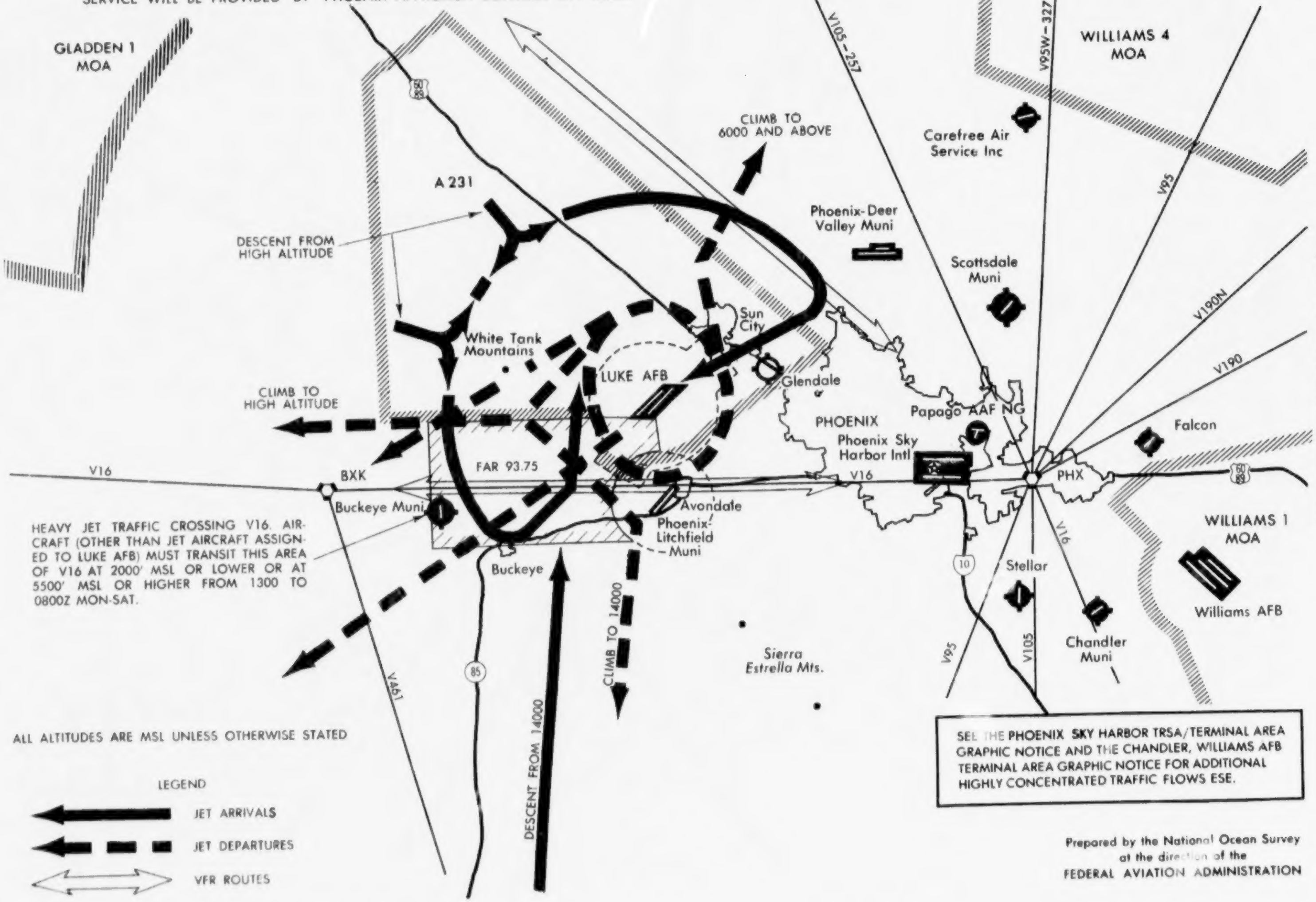
10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

GLENDALE, LUKE AFB, ARIZ.

THIS CHART SHOWS HIGHLY CONCENTRATED TRAFFIC FLOWS OF MILITARY STUDENT TRAINING ACTIVITY AND SUGGESTED VFR ROUTES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LUKE AIR FORCE BASE - PHOENIX AREA. TO THE EXTENT POSSIBLE, TRAFFIC ADVISORY SERVICE WILL BE PROVIDED BY PHOENIX APPROACH CONTROL ON 126.8.


GLADDEN 1 MOA
WILLIAMS 4 MOA
WILLIAMS 1 MOA
V105-257
V95W-327
V95
V190N
V190
V16
V105
V461
A 231
DESCENT FROM HIGH ALTITUDE
CLIMB TO 6000 AND ABOVE
CLIMB TO HIGH ALTITUDE
CLIMB TO 14000
DESCENT FROM 14000
Carefree Air Service Inc
Phoenix-Deer Valley Muni
Scottsdale Muni
White Tank Mountains
Sun City
LUKE AFB
Glendale
PHOENIX
Papago AAF NG
Phoenix Sky Harbor Intl
PHX
Falcon
Williams AFB
Stellar
Chandler Muni
FAR 93.75
BXK
Buckeye Muni
Buckeye
Avondale
Phoenix-Litchfield Muni
Sierra Estrella Mts.
85
10
60
89

HEAVY JET TRAFFIC CROSSING V16. AIRCRAFT (OTHER THAN JET AIRCRAFT ASSIGNED TO LUKE AFB) MUST TRANSIT THIS AREA OF V16 AT 2000' MSL OR LOWER OR AT 5500' MSL OR HIGHER FROM 1300 TO 0800Z MON-SAT.

SEE THE PHOENIX SKY HARBOR TRSA/TERMINAL AREA GRAPHIC NOTICE AND THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE.

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

LEGEND

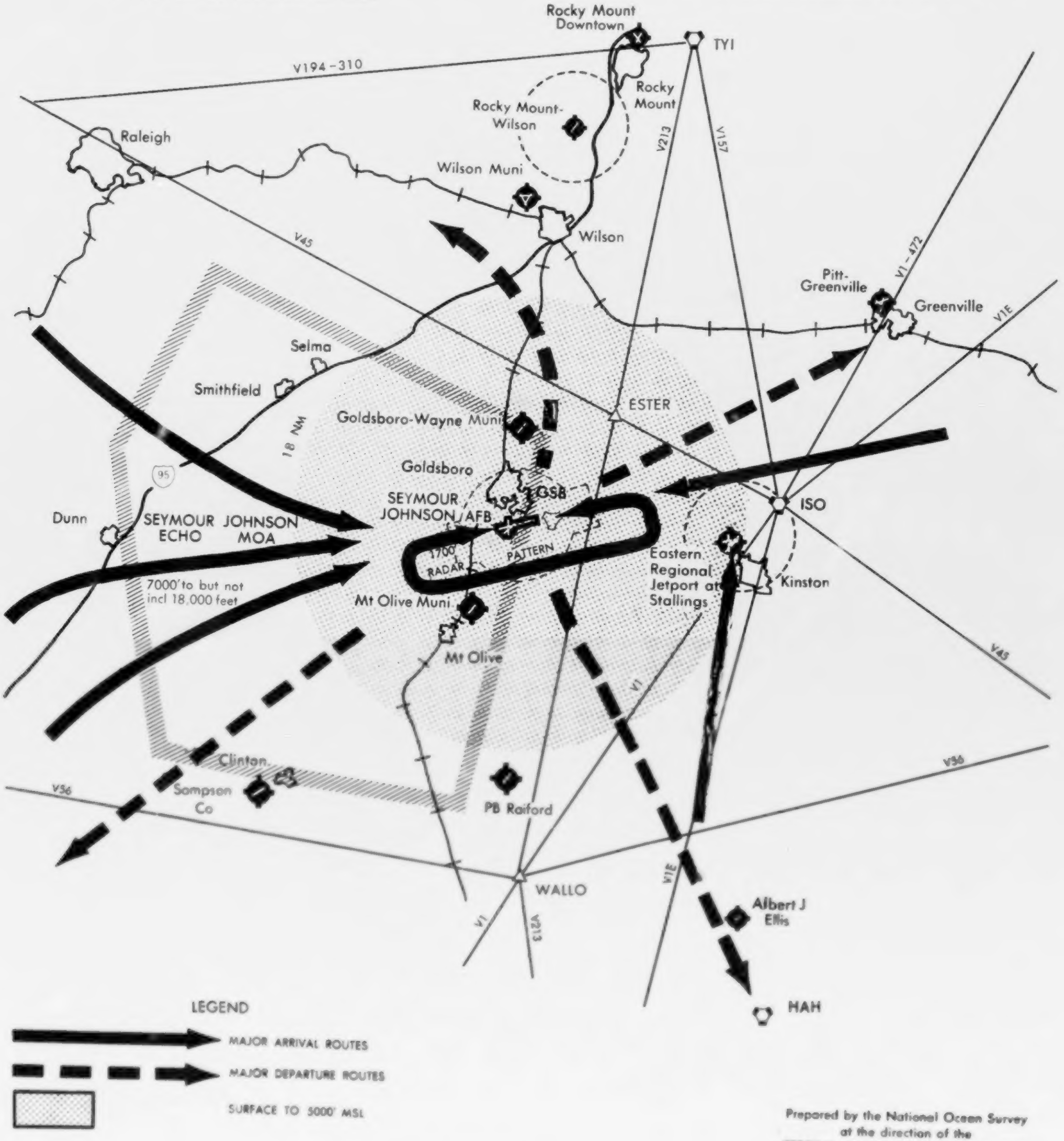
- JET ARRIVALS
- JET DEPARTURES
- VFR ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

GOLDSBORO, SEYMOUR JOHNSON AFB, N.C.

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE AIRCRAFT TRAFFIC IN THE VICINITY OF SEYMOUR JOHNSON AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST OF KC/EC-135's, B-52's F-4's, AND T38's. WITHIN 18 NM OF THE SEYMOUR JOHNSON TACAN, AIRCRAFT OPERATE FROM 1700 TO 5000 FT. MSL. THE RADAR ARRIVAL PATTERN IS NORMALLY ON THE SOUTH SIDE OF THE RUNWAY. AIRCRAFT ARE AT 1700 FT MSL ON THE DOWNWIND AND BASE LEG. THE SEYMOUR JOHNSON ECHO MOA IS USED BY F-4's AND T38's IN VFR CONDITIONS. AIRCRAFT IN THIS AREA OPERATE FROM 7000 FT. MSL TO FL 200 WITH ATC APPROVAL. IT IS SUGGESTED THAT VFR AIRCRAFT TRANSITING THE AREA AND ARRIVING/DEPARTING GOLDSBORO-WAYNE MUNICIPAL AIRPORT, MT. OLIVE MUNICIPAL AIRPORT, AND STALLINGS FIELD CONTACT SEYMOUR JOHNSON APPROACH CONTROL ON 119.7 MHZ/338.6 MHZ FOR TRAFFIC ADVISORIES. RECOMMEND THAT VFR TRAFFIC USE ROUTES AND ALTITUDES TO AVOID THE DEPICTED AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE TRAFFIC IN THE SEYMOUR JOHNSON AFB TERMINAL AREA.


Rocky Mount Downtown
TYI
V194-310
Rocky Mount
Rocky Mount-Wilson
Raleigh
V213
V157
Wilson Muni
Wilson
V45
Pitt-Greenville
V1-472
Greenville
V1E
Selma
Smithfield
18 NM
ESTER
Goldsboro-Wayne Muni
Goldsboro
95
SEYMOUR JOHNSON AFB
GSB
ISO
Dunn
SEYMOUR JOHNSON ECHO MOA
7000' to but not incl 18,000 feet
1700 RADAR PATTERN
Eastern Regional Jetport at Stallings
Kinston
Mt Olive Muni
Mt Olive
V1
V45
Clinton
Sampson Co
V56
V56
PB Raiford
WALLO
V1
V213
V1E
Albert J Ellis
HAH
LEGEND
MAJOR ARRIVAL ROUTES
MAJOR DEPARTURE ROUTES
SURFACE TO 5000' MSL

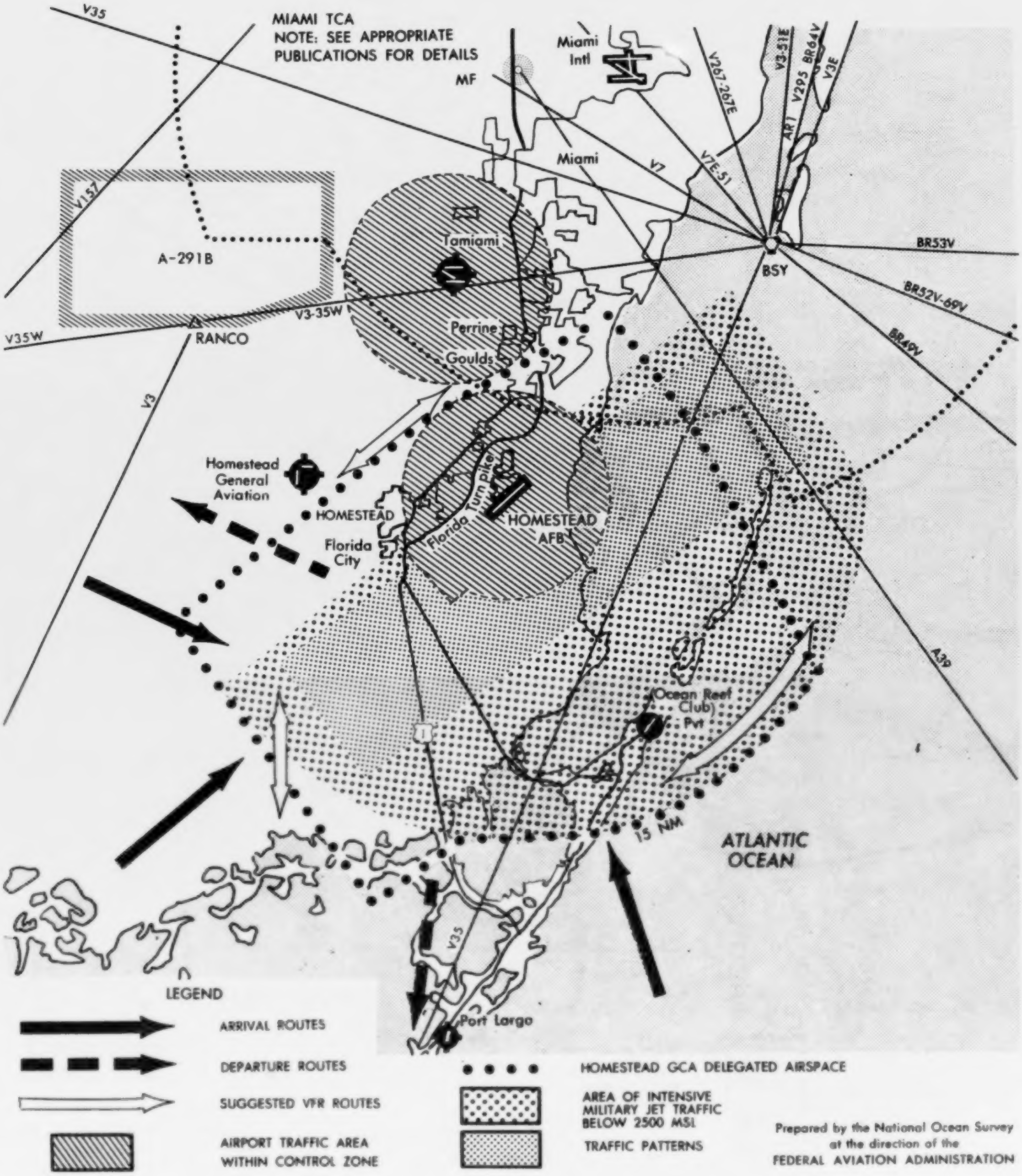
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOMESTEAD AFB, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE MILITARY JET OPERATIONS IN THE VICINITY OF HOMESTEAD AFB. MILITARY AIRCRAFT OPERATING IN THESE AREAS CONSIST PRIMARILY OF F-4s AND HELICOPTERS. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT HOMESTEAD GCA ON 123.8 OR HOMESTEAD TOWER ON 126.2 STAGE II SERVICE IS AVAILABLE FOR AIRCRAFT ARRIVING HOMESTEAD AFB.

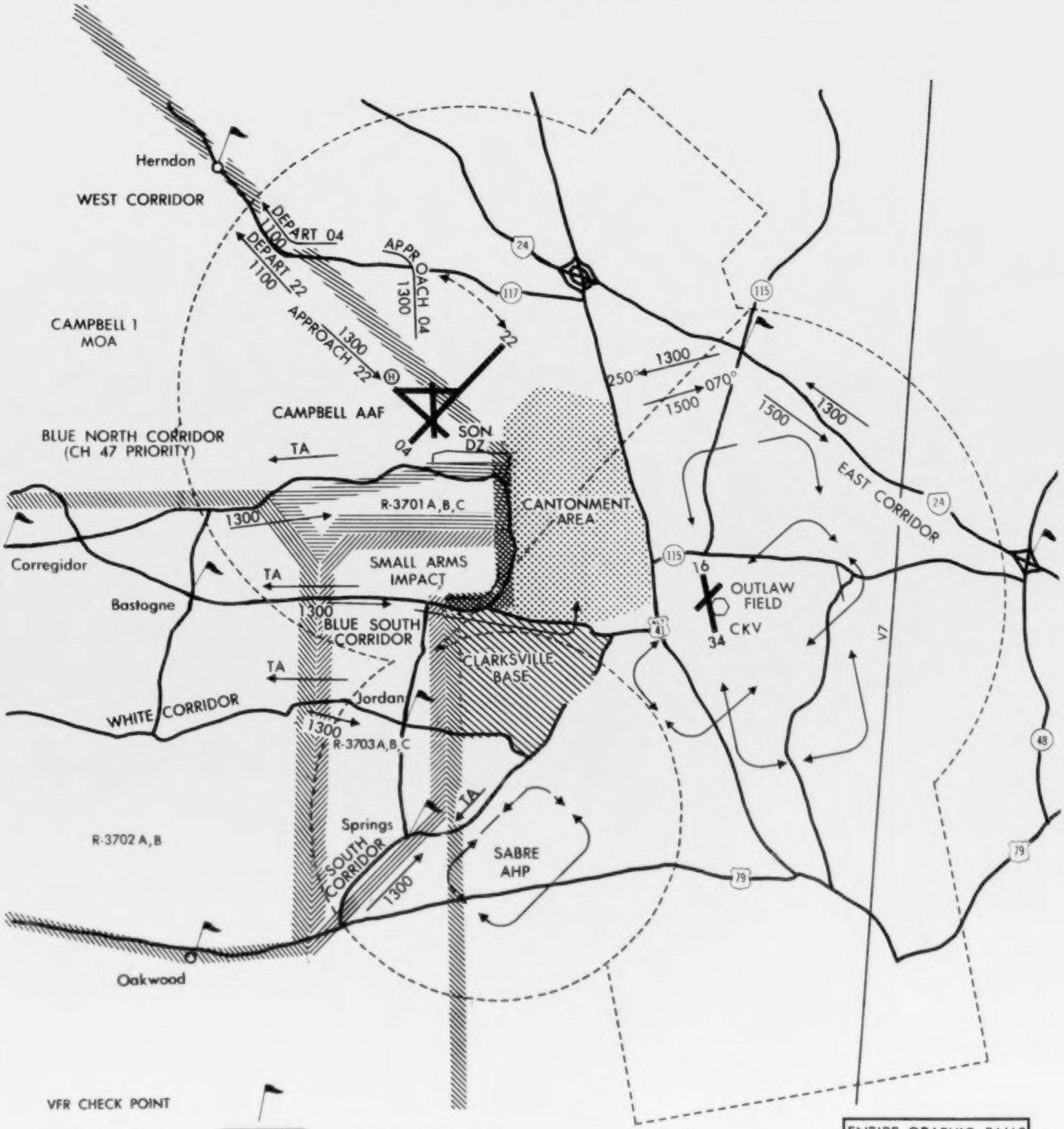

V35
MIAMI TCA
NOTE: SEE APPROPRIATE
PUBLICATIONS FOR DETAILS
MF
Miami
Intl
V267-267E
V3-51E
V295
BR64V
V3E
AR1
Miami
V7
V7E-51
V157
A-291B
Tamiami
BSY
BR53V
BR52V-69V
BR49V
V3-35W
V35W
RANCO
Perrine
Goulds
V3
Homestead
General
Aviation
HOMESTEAD
Florida Turnpike
HOMESTEAD
AFB
Florida
City
A39
(Ocean Reef
Club)
Pvt
1
15 NM
ATLANTIC
OCEAN
V35
Port Largo
LEGEND
ARRIVAL ROUTES
DEPARTURE ROUTES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
WITHIN CONTROL ZONE
HOMESTEAD GCA DELEGATED AIRSPACE
AREA OF INTENSIVE
MILITARY JET TRAFFIC
BELOW 2500 MSL
TRAFFIC PATTERNS

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

5 APR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

HOPKINSVILLE, CAMPBELL AAF, KY.
VFR/SPECIAL VFR MILITARY HELICOPTER ROUTES
FORT CAMPBELL, KY. AREA


Herndon
WEST CORRIDOR
DEPART 04
1100
DEPART 22
1100
APPROACH 04
1300
APPROACH 22
1300
24
117
115
22
CAMPBELL 1
MOA
CAMPBELL AAF
04
SON
DZ
BLUE NORTH CORRIDOR
(CH 47 PRIORITY)
TA
250°
1300
070°
1500
1500
1300
EAST CORRIDOR
24
R-3701 A,B,C
1300
CANTONMENT
AREA
SMALL ARMS
IMPACT
Corregidor
TA
Bastogne
1300
BLUE SOUTH
CORRIDOR
CLARKSVILLE
BASE
115
16
OUTLAW
FIELD
CKV
34
41
V7
TA
WHITE CORRIDOR
Jordan
1300
R-3703 A,B,C
48
TA
Springs
R-3702 A,B
SOUTH
CORRIDOR
1300
SABRE
AHP
79
79
Oakwood

VFR CHECK POINT

CLARKVILLE BASE ▨

CANTONMENT AREA ▨

RESTRICTED AREA ▨

TACTICAL ALTITUDE TA

FLIGHT DIRECTION
AND MAXIMUM
ALTITUDE (MSL)* → TA

*MANDATORY ALTITUDES DURING VFR
CONDITIONS AND CLEAR OF CLOUDS
DURING SPECIAL VFR CONDITIONS

ENTIRE GRAPHIC FALLS
WITHIN A-371

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

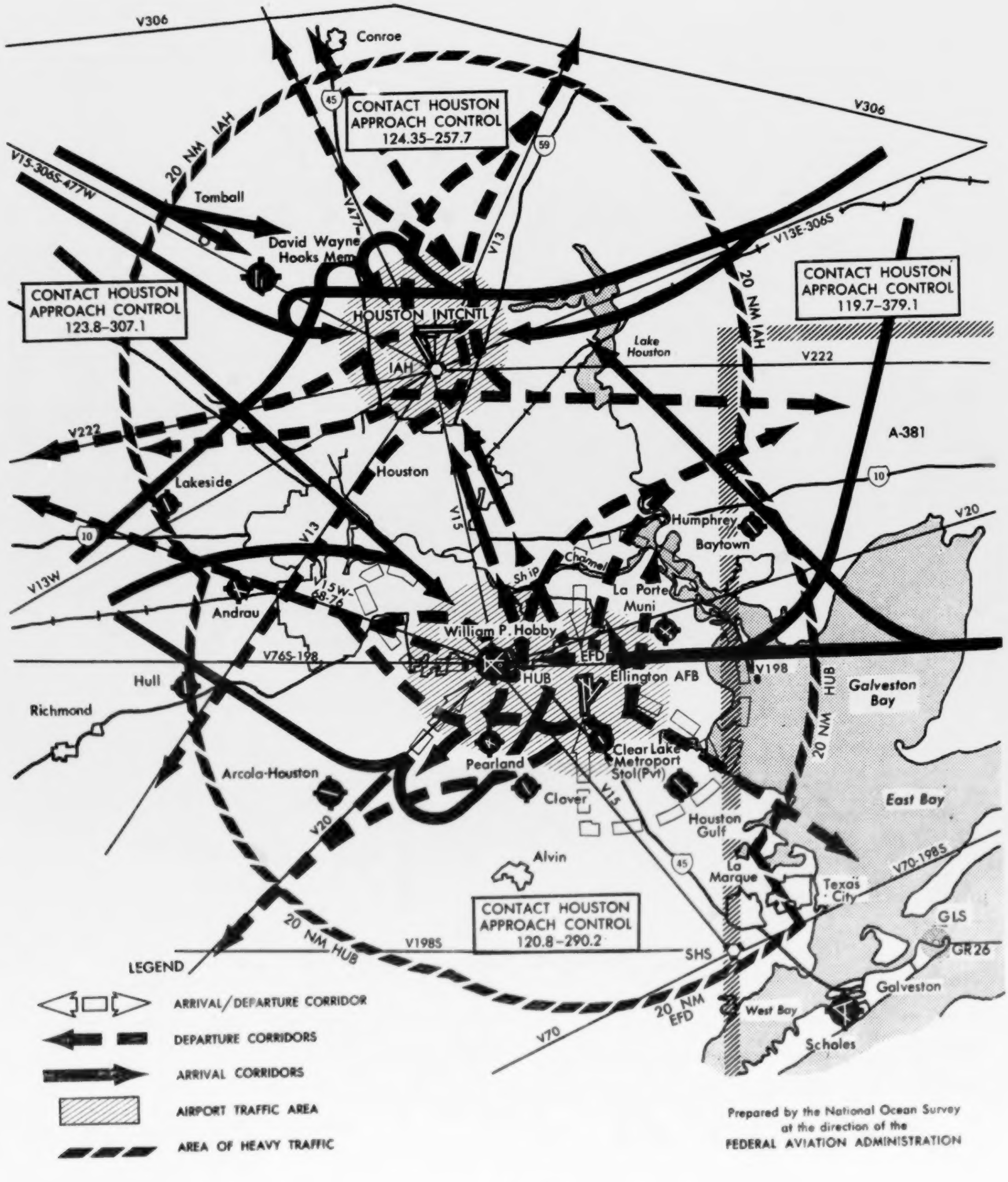
24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

HOUSTON, TEXAS

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE ROUTES SERVING THE HOUSTON TERMINAL AREA FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS ARE ENCOURAGED TO CONTACT HOUSTON APPROACH CONTROL FOR TRAFFIC ADVISORY SERVICE.


V306
Conroe
45
CONTACT HOUSTON APPROACH CONTROL 124.35–257.7
59
V306
20 NM IAH
V15-306S-477W
Tomball
V477
V13
David Wayne Hooks Mem
V13E-306S
CONTACT HOUSTON APPROACH CONTROL 123.8–307.1
HOUSTON INTCNTL
IAH
20 NM IAH
CONTACT HOUSTON APPROACH CONTROL 119.7–379.1
Lake Houston
V222
V222
A-381
Houston
10
Lakeside
10
V15
V13
V20
Humphrey
Baytown
V13W
Ship Channel
V15W-68-76
La Porte Muni
Andrau
William P. Hobby
V76S-198
EFD
HUB
Ellington AFB
V198
Hull
HUB
20 NM
Galveston Bay
Richmond
Clear Lake Metroport Stol(Pvt)
Pearland
Arcola-Houston
Clover
V15
East Bay
V20
Houston Gulf
45
Alvin
La Marque
Texas City
V70-198S
GLS
GR26
CONTACT HOUSTON APPROACH CONTROL 120.8–290.2
V198S
SHS
20 NM HUB
Galveston
20 NM EFD
West Bay
V70
Scholes
LEGEND
ARRIVAL/DEPARTURE CORRIDOR
DEPARTURE CORRIDORS
ARRIVAL CORRIDORS
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

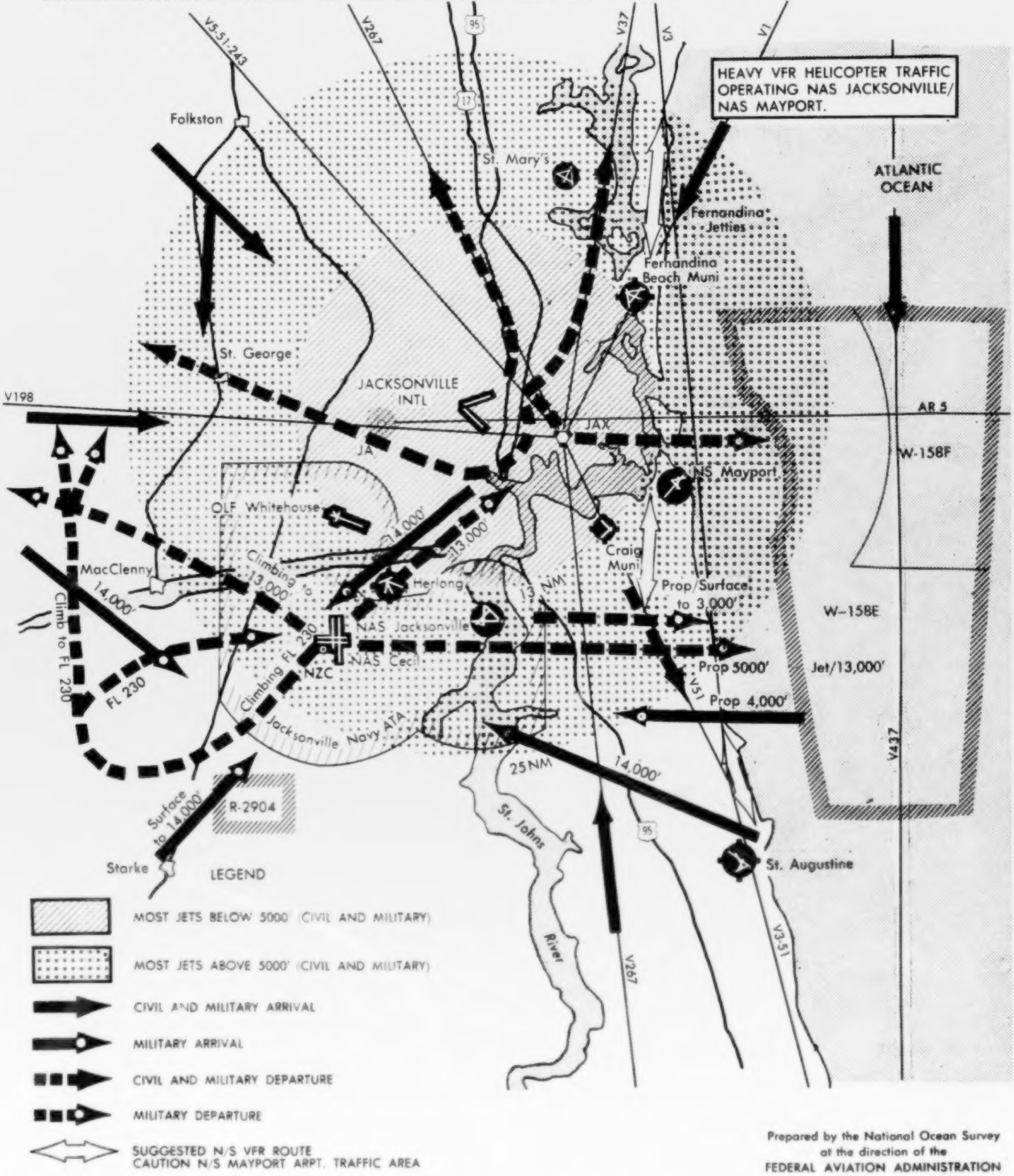
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

JACKSONVILLE INTL. AIRPORT, JACKSONVILLE, FLORIDA

THIS GRAPHIC SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE JACKSONVILLE TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT JACKSONVILLE APPROACH CONTROL ON 119.0/335.6 WHILE TRANSITING THIS AIRSPACE.

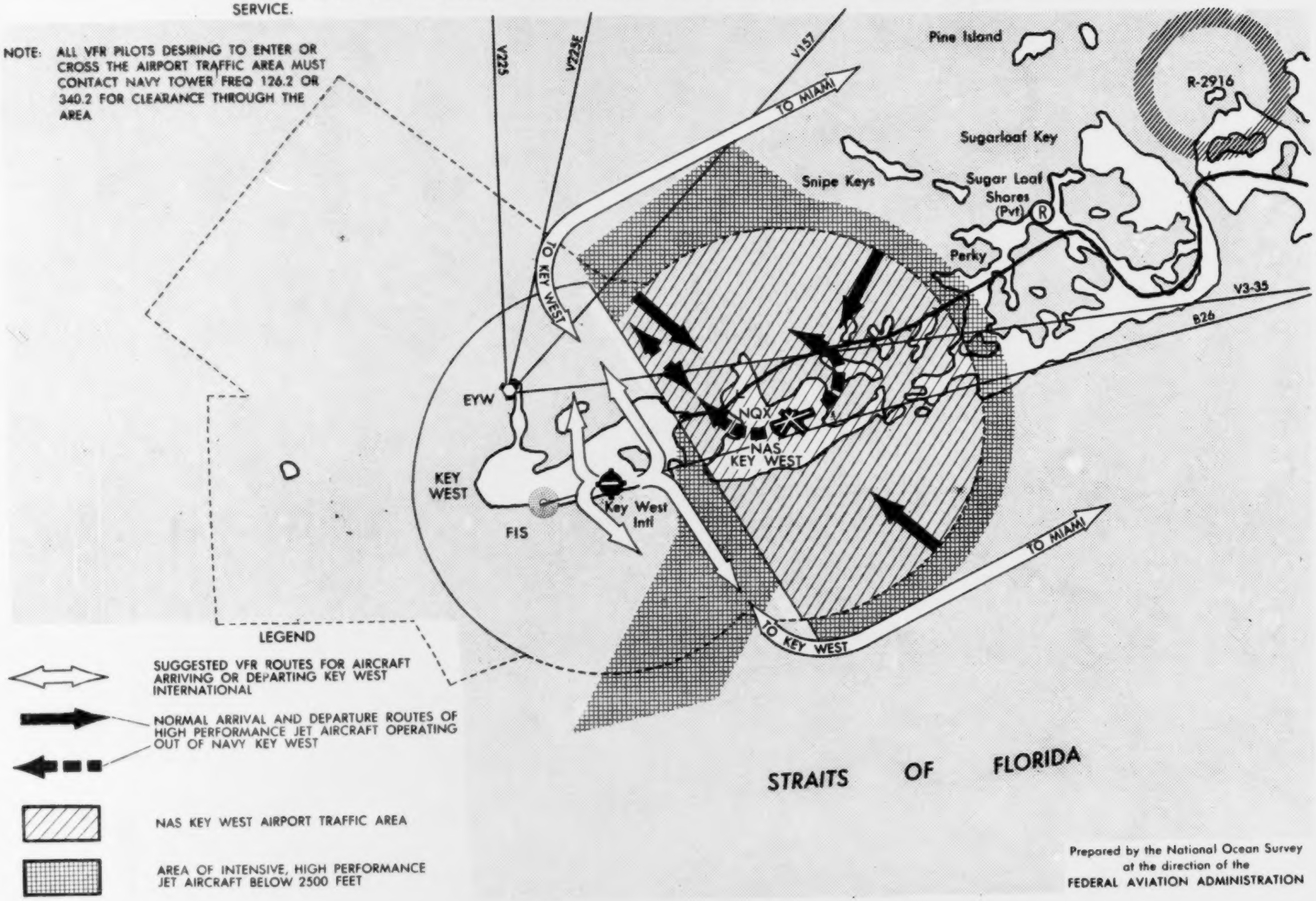

V5-51-243
V267
95
V37
V3
V1
17
HEAVY VFR HELICOPTER TRAFFIC OPERATING NAS JACKSONVILLE/ NAS MAYPORT.
Folkston
St. Mary's
ATLANTIC OCEAN
Fernandina Jetties
Fernandina Beach Muni
St. George
JACKSONVILLE INTL
V198
JAX
AR 5
W-158F
NS Mayport
OLF Whitehouse
14,000'
13,000'
Craig Muni
MacClenny
Climbing to 13,000'
14,000'
Herlong
13 NM
Prop/Surface to 3,000'
W-158E
Climb to FL 230
FL 230
NAS Jacksonville
NAS Cecil
NZC
Climbing FL 230
Prop 5000'
Jet/13,000'
V51
Prop 4,000'
Jacksonville Navy ATA
25 NM
14,000'
V437
Surface to 14,000'
R-2904
St. Johns River
95
St. Augustine
Starke
V267
V3-51
LEGEND
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL
CIVIL AND MILITARY DEPARTURE
MILITARY DEPARTURE
SUGGESTED N/S VFR ROUTE CAUTION N/S MAYPORT ARPT. TRAFFIC AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

KEY WEST NAS, FLORIDA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR AND VFR HIGH PERFORMANCE JET OPERATIONS IN THE VICINITY OF KEY WEST. MILITARY AIRCRAFT CONSIST PRIMARILY OF A-4, F-4, AND A-5 TYPE AIRCRAFT. ALL VFR PILOTS OPERATING IN THE KEY WEST AREA ARE ENCOURAGED TO CONTACT KEY WEST APPROACH ON 118.7 OR 263.6 FOR RADAR ADVISORY SERVICE.

NOTE: ALL VFR PILOTS DESIRING TO ENTER OR CROSS THE AIRPORT TRAFFIC AREA MUST CONTACT NAVY TOWER FREQ 126.2 OR 340.2 FOR CLEARANCE THROUGH THE AREA


V225
V223E
V157
TO MIAMI
Pine Island
R-2916
Sugarloaf Key
Snipe Keys
Sugar Loaf Shores (Pvt)
R
Perky
V3-35
B26
TO KEY WEST
EYW
NQX
NAS KEY WEST
KEY WEST
Key West Intl
FIS
TO MIAMI
TO KEY WEST
STRAITS OF FLORIDA

LEGEND

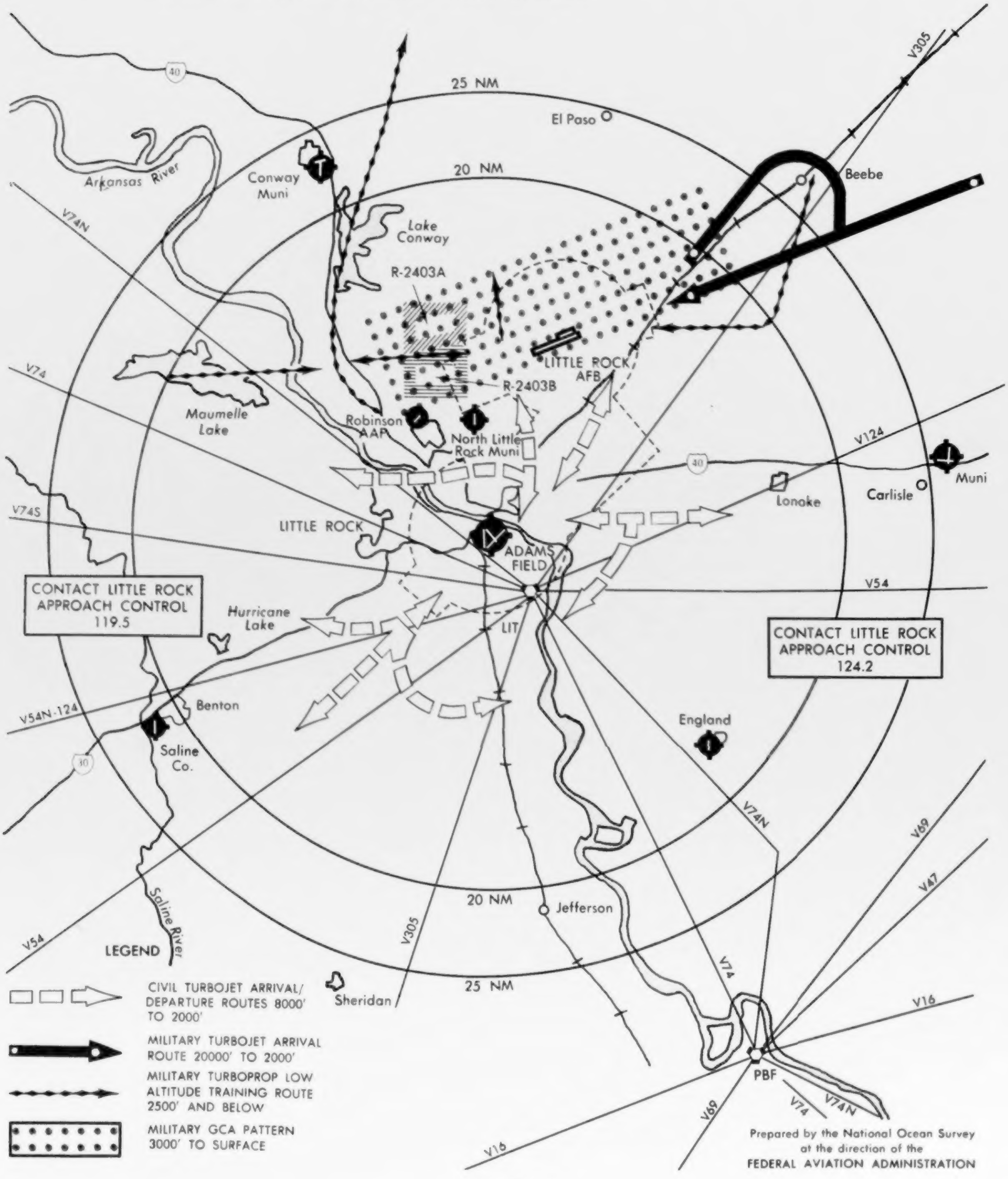
⇔	SUGGESTED VFR ROUTES FOR AIRCRAFT ARRIVING OR DEPARTING KEY WEST INTERNATIONAL
➡ ⬅ ■ ■	NORMAL ARRIVAL AND DEPARTURE ROUTES OF HIGH PERFORMANCE JET AIRCRAFT OPERATING OUT OF NAVY KEY WEST
▨	NAS KEY WEST AIRPORT TRAFFIC AREA
▦	AREA OF INTENSIVE, HIGH PERFORMANCE JET AIRCRAFT BELOW 2500 FEET

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LITTLE ROCK ADAMS FIELD/AFB, ARKANSAS

THIS CHART SHOWS AREAS OF IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE LITTLE ROCK AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT LITTLE ROCK APPROACH FOR TRAFFIC ADVISORIES.


40
25 NM
El Paso
V305
20 NM
Beebe
Arkansas River
Conway Muni
V74N
Lake Conway
R-2403A
R-2403B
LITTLE ROCK AFB
V74
Maumelle Lake
Robinson AAP
North Little Rock Muni
V124
Carlisle
Muni
Lonoke
V74S
LITTLE ROCK
ADAMS FIELD
V54
LIT
Hurricane Lake
V54N-124
Benton
Saline Co.
30
England
V74N
V69
V47
20 NM
Jefferson
V54
Saline River
V305
25 NM
Sheridan
V74
V16
PBF
V74
V74N
V69
V16
LEGEND
CIVIL TURBOJET ARRIVAL/ DEPARTURE ROUTES 8000' TO 2000'
MILITARY TURBOJET ARRIVAL ROUTE 20000' TO 2000'
MILITARY TURBOPROP LOW ALTITUDE TRAINING ROUTE 2500' AND BELOW
MILITARY GCA PATTERN 3000' TO SURFACE

CONTACT LITTLE ROCK
APPROACH CONTROL
119.5

CONTACT LITTLE ROCK
APPROACH CONTROL
124.2

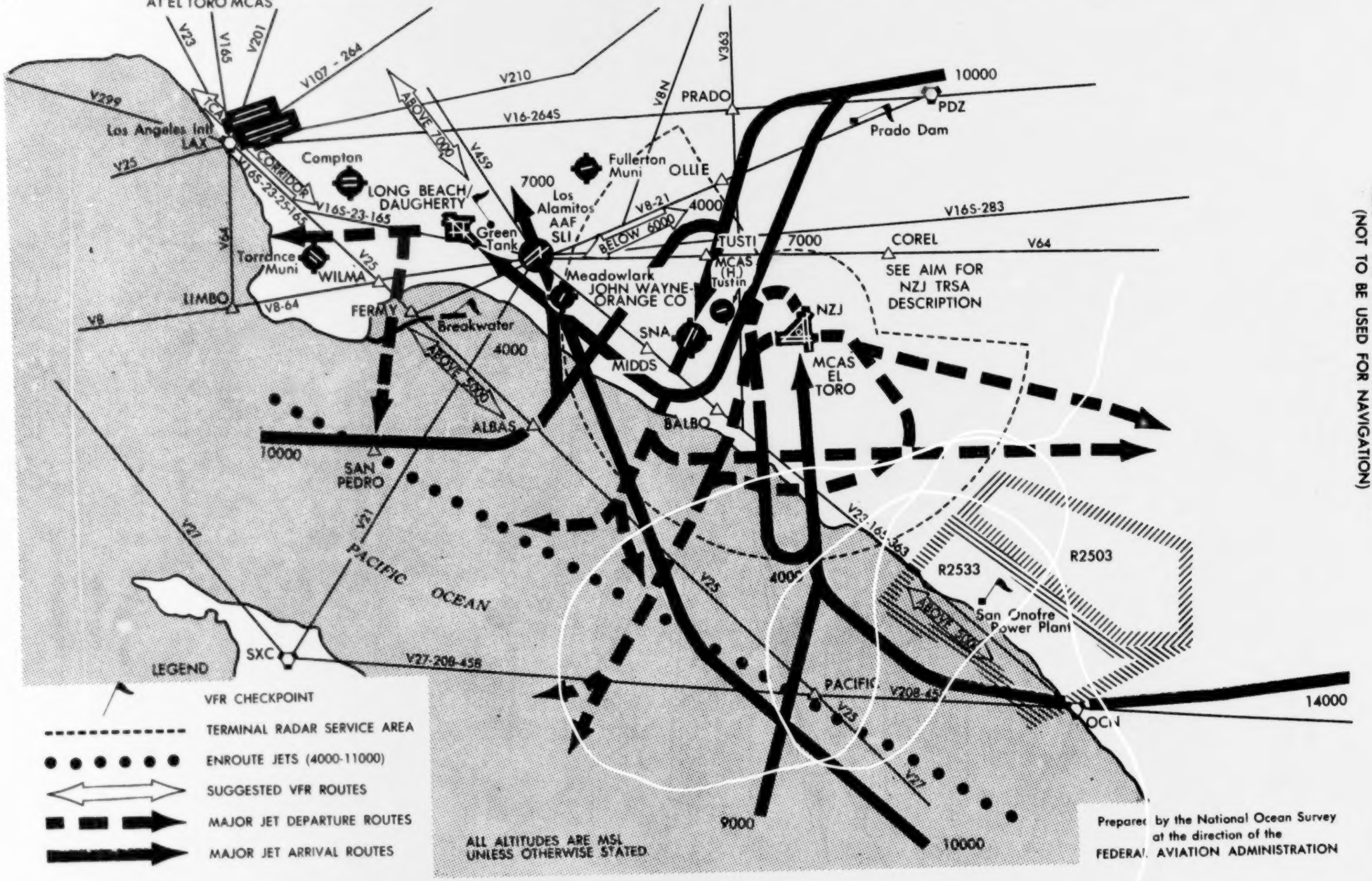
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LONG BEACH, CALIFORNIA
DAUGHERTY-JOHN WAYNE-ORANGE COUNTY-EL

THIS CHART, DEPICITING THE IFR ROUTES WITHIN THE COAST APPROACH CONTROL AIRSPACE, IS TO ASSIST PILOTS IN PLANNING FLIGHTS INTO AND THROUGH THE AREA. STAGE II SERVICE TO LONG BEACH AIRPORT, AND TRAFFIC ADVISORY SERVICE IS AVAILABLE ON THE FOLLOWING FREQUENCIES: NORTH AND EAST OF SEAL BEACH VOR-121.3; SOUTH-124.65; WEST-127.2. SOUTH EAST OF SANTA ANA VOR-124.1. STAGE III SERVICE IS AVAILABLE AT EL TORO MCAS


V23
V165
V201
V107 - 264
V210
V299
TCA
Los Angeles Intl
LAX
V25
CORRIDOR
V165-23-25-165
V165-23-165
Compton
LONG BEACH/
DAUGHERTY
ABOVE 7000
V459
V16-264S
V8N
PRADO
V363
10000
PDZ
Prado Dam
Fullerton
Muni
OLLIE
7000
Los
Alamitos
AAF
SLI
Green
Tank
V8-21
BELOW 6000
4000
TUSTI
7000
V165-283
COREL
V64
Torrance
Muni
WILMA
V8
LIMBO
V8-64
FERMY
Breakwater
4000
ABOVE 5000
Meadowlark
JOHN WAYNE
ORANGE CO
MCAS
(H.)
Tustin
SNA
MIDDS
NZJ
MCAS
EL
TORO
SEE AIM FOR
NZJ TRSA
DESCRIPTION
ALBAS
BALBO
10000
SAN
PEDRO
V21
V27
PACIFIC
OCEAN
V23-165-363
4000
V25
R2533
R2503
San Onofre
Power Plant
ABOVE 500
SXC
V27-208-458
PACIFIC
V208-45
V23
V27
14000
OCN
9000
10000
ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED
LEGEND
VFR CHECKPOINT
TERMINAL RADAR SERVICE AREA
ENROUTE JETS (4000-11000)
SUGGESTED VFR ROUTES
MAJOR JET DEPARTURE ROUTES
MAJOR JET ARRIVAL ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LOUISVILLE, KENTUCKY

THIS CHART SHOWS THE PRINCIPAL IFR JET TRAFFIC ROUTES. VFR PILOTS OPERATING IN THIS AREA ARE STRONGLY ENCOURAGED TO CONTACT STANDIFORD APPROACH CONTROL FOR TRAFFIC ADVISORIES. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT.

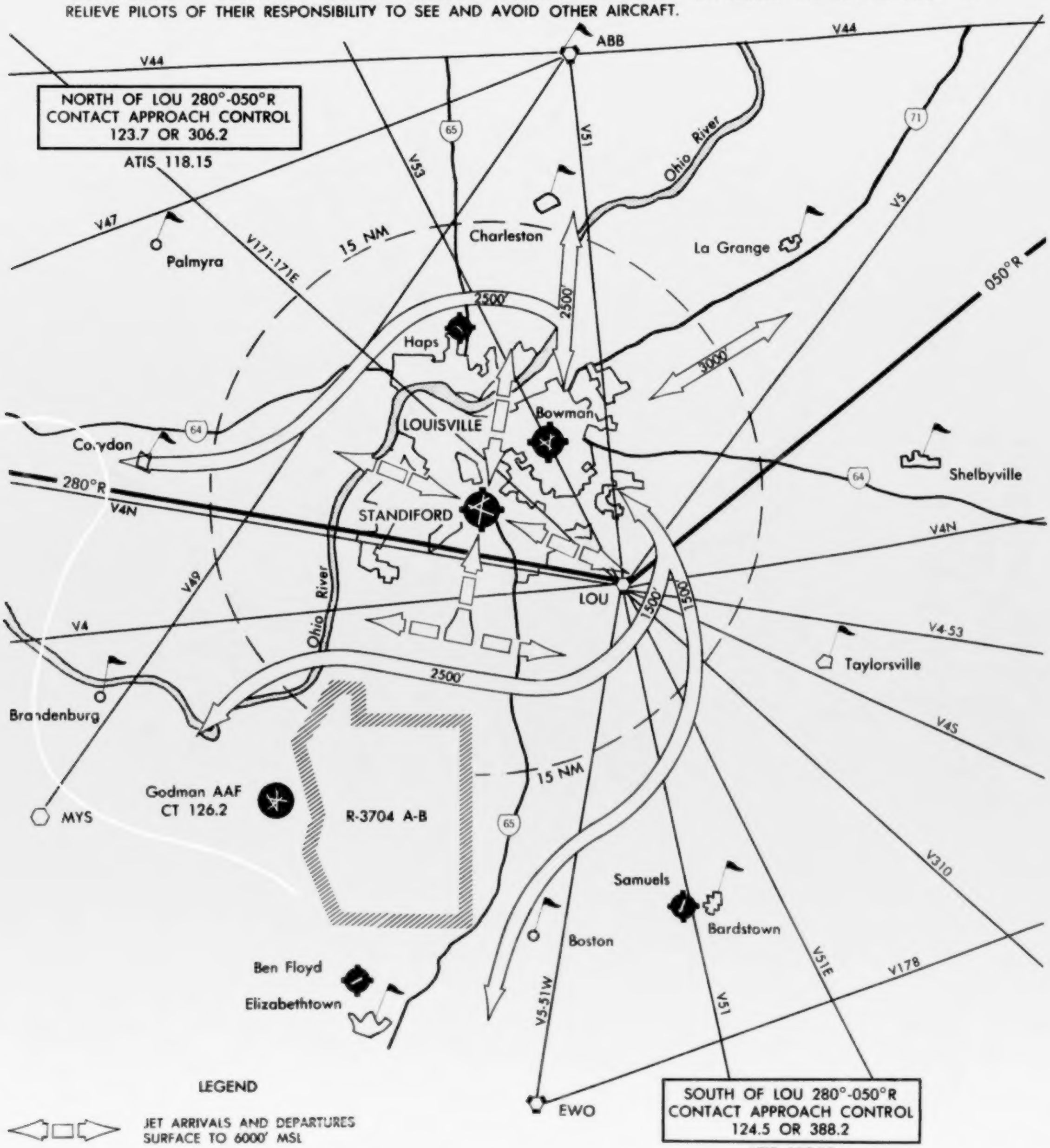


ABB
V44
V44
65
V51
V53
Ohio River
71
V47
Palmyra
V171-171E
15 NM
Charleston
La Grange
V5
050°R
2500'
2500'
Haps
3000'
LOUISVILLE
Bowman
64
Corydon
Shelbyville
64
280°R
V4N
STANDIFORD
V4N
V49
Ohio River
LOU
1500'
1500'
V4
V4-53
Taylorsville
2500'
Brandenburg
V45
15 NM
Godman AAF
CT 126.2
R-3704 A-B
MYS
65
V310
Samuels
Bardstown
Boston
Ben Floyd
Elizabethtown
V51E
V178
V5-51W
V51
EWO

NORTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
123.7 OR 306.2
ATIS 118.15

SOUTH OF LOU 280°-050°R
CONTACT APPROACH CONTROL
124.5 OR 388.2
ATIS 118.15

LEGEND

⇦□⇨	JET ARRIVALS AND DEPARTURES SURFACE TO 6000' MSL
⇔	RECOMMENDED VFR ROUTES FOR AIRCRAFT NOT IN CONTACT WITH SDF A/C
— — — —	TRSA 2000' TO 6000' MSL

AIRCRAFT RECEIVING STAGE III SERVICE MAY EXPECT DIRECT ROUTINGS TO THE EXTENT POSSIBLE.

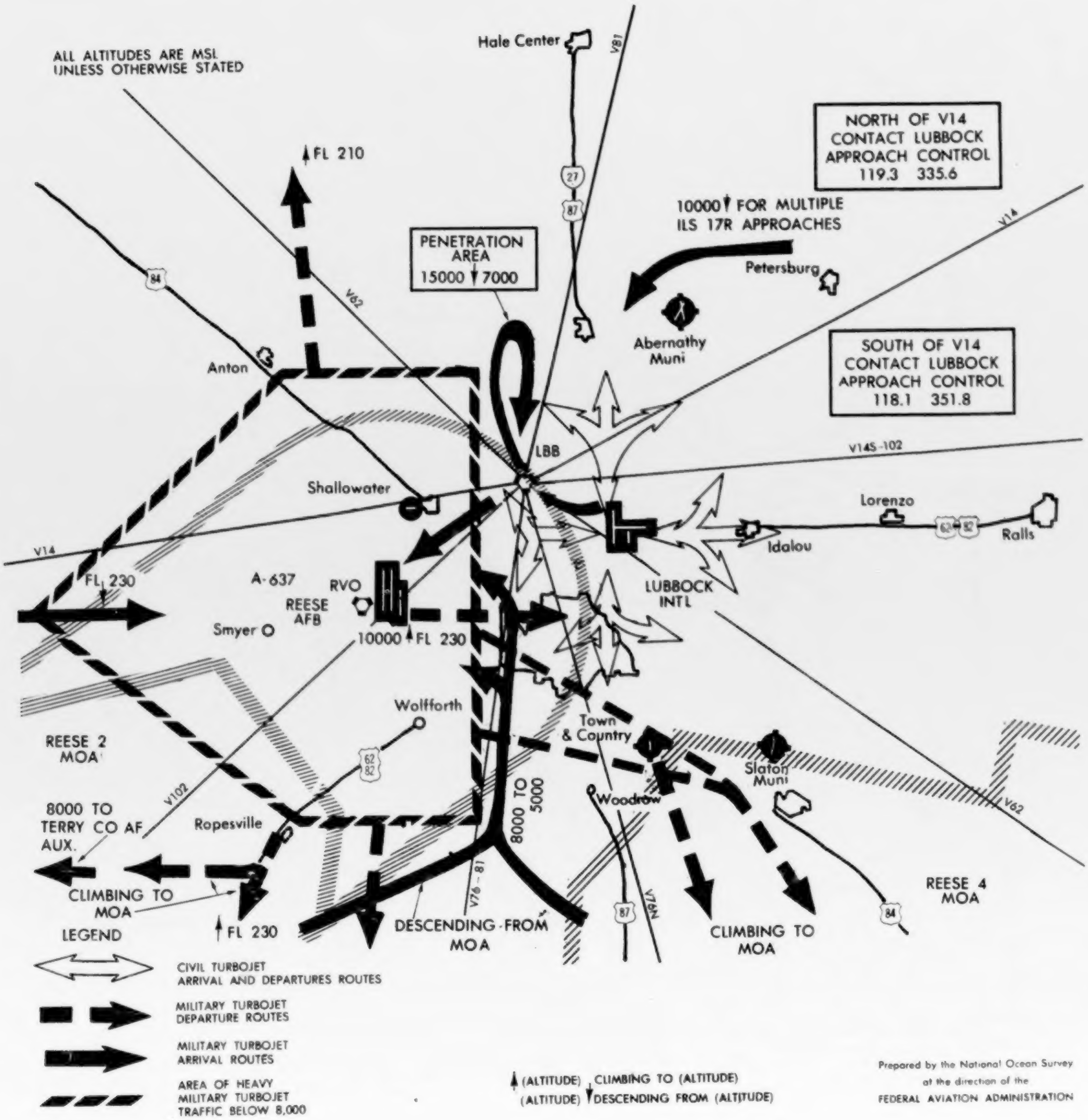
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

13 JUL 1978

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

LUBBOCK INTERNATIONAL, TEXAS

THIS CHART SHOWS AREAS OF CONCENTRATED TURBOJET IFR TRAFFIC AND AREAS WHICH CONTAIN A HIGH VOLUME OF TURBOJET OPERATIONS IN THE LUBBOCK/REESE AFB TERMINAL AREA. HIGH PERFORMANCE AIRCRAFT LANDING LUBBOCK INTERNATIONAL AIRPORT ARE NORMALLY IN A GRADUATED DESCENT (300' PER MILE) FROM APPROXIMATELY 12,000 MSL AT 30 NM FROM THE AIRPORT TO THE LANDING RUNWAY. AIRCRAFT ARE ENCOURAGED TO CONTACT LUBBOCK APPROACH CONTROL FOR TRAFFIC ADVISORIES.

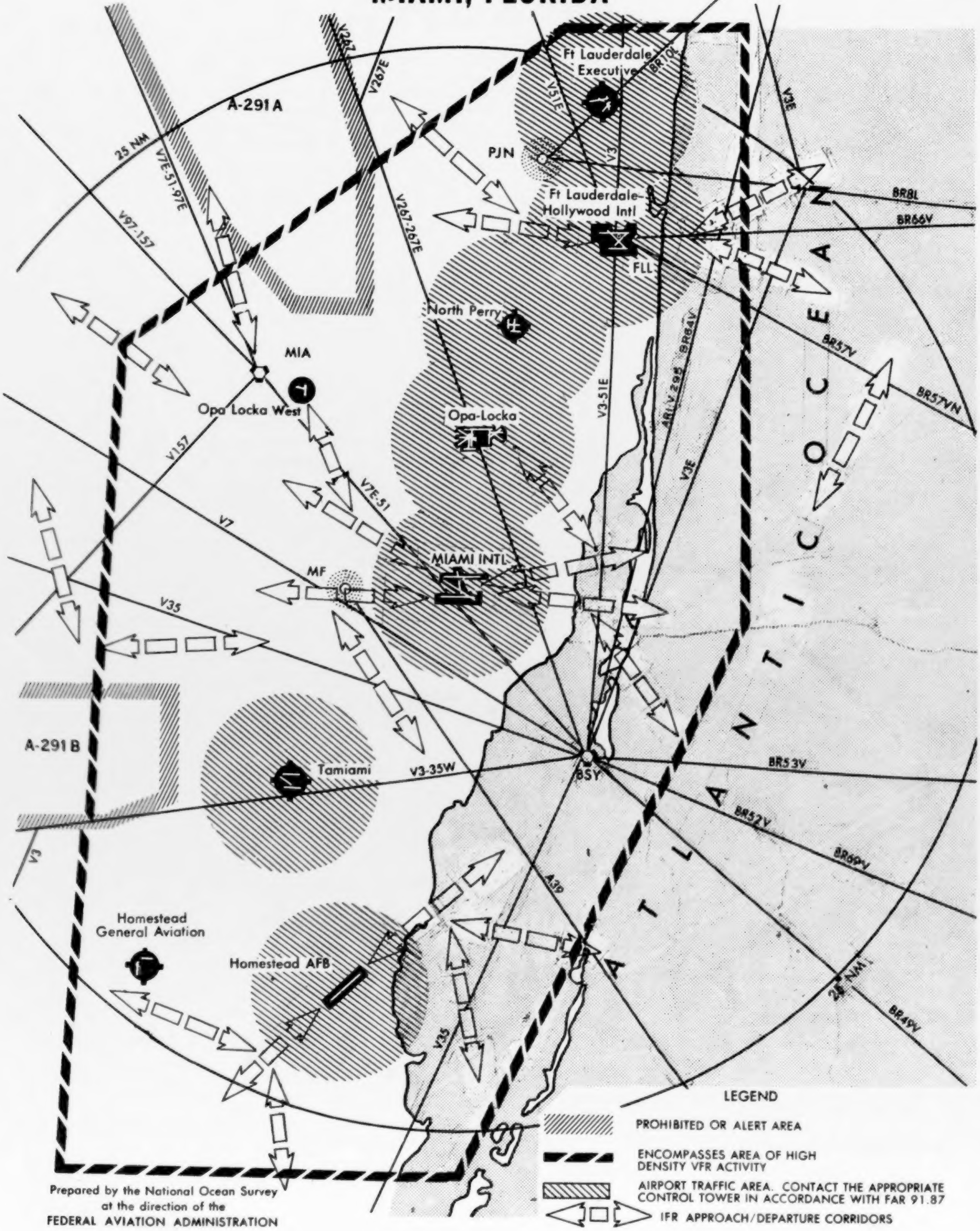

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

Hale Center
V81
27
87
FL 210
NORTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 119.3 335.6
10000 FOR MULTIPLE ILS 17R APPROACHES
V14
PENETRATION AREA 15000 7000
Petersburg
84
V62
Abernathy Muni
SOUTH OF V14 CONTACT LUBBOCK APPROACH CONTROL 118.1 351.8
Anton
LBB
V14S-102
Shallowater
Lorenzo
62
82
Ralls
Idalou
V14
FL 230
A-637
RVO
REESE AFB
LUBBOCK INTL
Smyer
10000 FL 230
Wolfforth
Town & Country
REESE 2 MOA
62
82
Slaton Muni
V102
Woodrow
V62
8000 TO 5000
8000 TO TERRY CO AF AUX.
Ropesville
V76-81
V76N
REESE 4 MOA
CLIMBING TO MOA
87
84
FL 230
DESCENDING FROM MOA
CLIMBING TO MOA
LEGEND
CIVIL TURBOJET ARRIVAL AND DEPARTURES ROUTES
MILITARY TURBOJET DEPARTURE ROUTES
MILITARY TURBOJET ARRIVAL ROUTES
AREA OF HEAVY MILITARY TURBOJET TRAFFIC BELOW 8,000
(ALTITUDE) CLIMBING TO (ALTITUDE)
(ALTITUDE) DESCENDING FROM (ALTITUDE)

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MIAMI, FLORIDA


A-291A
25 NM
V7E-51-97E
V97-157
V267
V267E
V267-267E
Ft Lauderdale Executive
V51E
BR10L
V3
V3E
PJN
Ft Lauderdale-Hollywood Intl
FLL
BR8L
BR66V
North Perry
MIA
Opa Locka West
Opa-Locka
V3-51E
AR1-V 295
BR64V
BR57V
BR57VN
V157
V7E-51
V7
MIAMI INTL
MF
V35
A-291B
Tamiami
V3-35W
BSY
BR53V
BR52V
BR69V
A39
V3
Homestead General Aviation
Homestead AFB
V35
25 NM
BR49V
ATLANTIC OCEAN

LEGEND

▨ PROHIBITED OR ALERT AREA

▬ ▬ ENCOMPASSES AREA OF HIGH DENSITY VFR ACTIVITY

▨ AIRPORT TRAFFIC AREA. CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87

⇦ ☐ ⇨ IFR APPROACH/DEPARTURE CORRIDORS

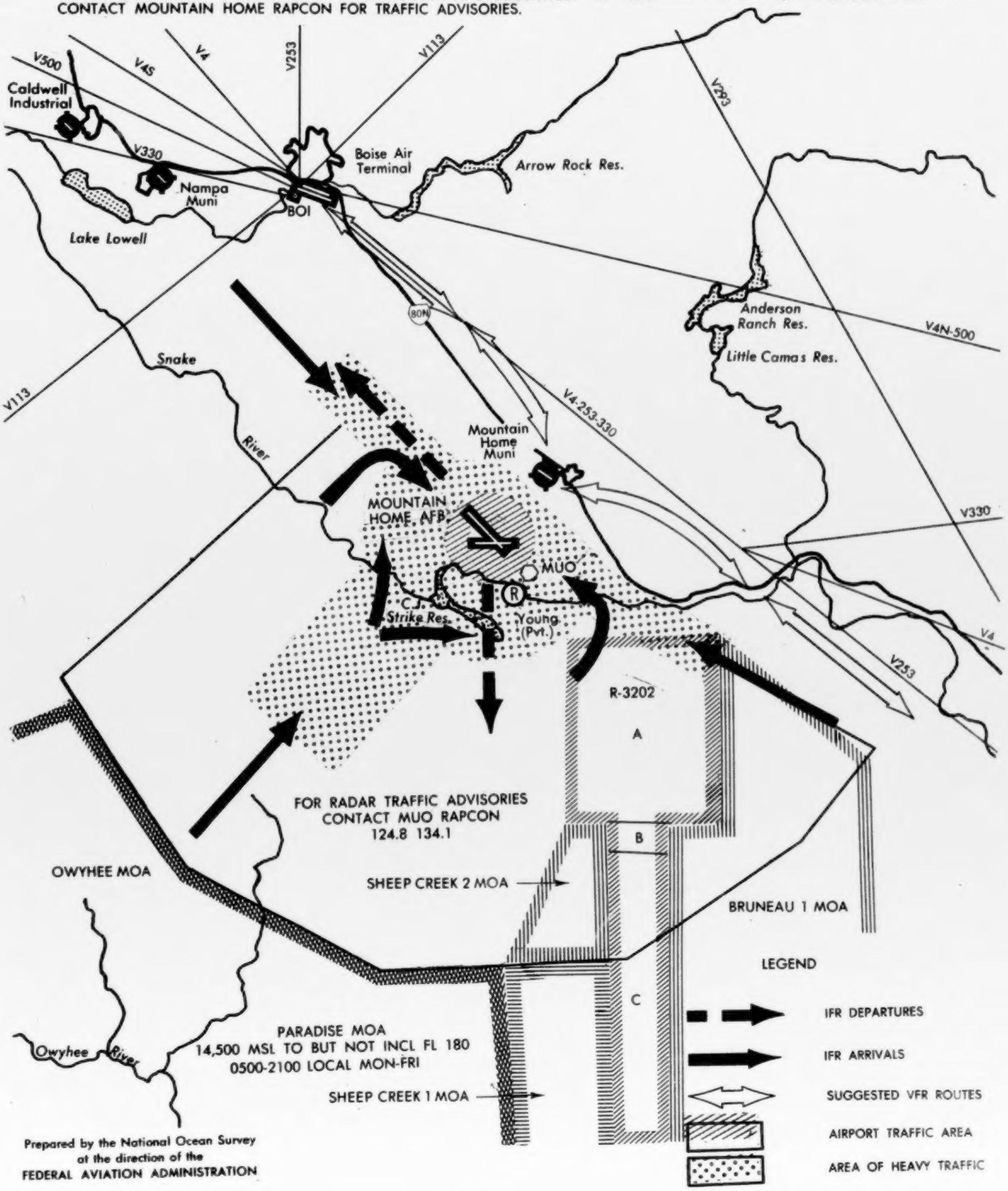
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

9 AUG 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MOUNTAIN HOME AFB, IDAHO

THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING MOUNTAIN HOME AFB FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, OR PROPOSING TO TRANSIT THE PARADISE MOA WHICH LIES IMMEDIATELY SOUTH AND SOUTHWEST OF MOUNTAIN HOME AFB, ARE ENCOURAGED TO CONTACT MOUNTAIN HOME RAPCON FOR TRAFFIC ADVISORIES.


V500
V4S
V4
V253
V113
V293
Caldwell Industrial
V330
Nampa Muni
Boise Air Terminal
BOI
Arrow Rock Res.
Lake Lowell
80N
Anderson Ranch Res.
V4N-500
Little Camas Res.
Snake River
V113
V4-253-330
Mountain Home Muni
MOUNTAIN HOME AFB
V330
MUO
R
C.J. Strike Res.
Young (Pvt.)
V4
V253
R-3202
A
FOR RADAR TRAFFIC ADVISORIES
CONTACT MUO RAPCON
124.8 134.1
B
OWYHEE MOA
SHEEP CREEK 2 MOA
BRUNEAU 1 MOA
LEGEND
C
IFR DEPARTURES
PARADISE MOA
14,500 MSL TO BUT NOT INCL FL 180
0500-2100 LOCAL MON-FRI
IFR ARRIVALS
Owyhee River
SHEEP CREEK 1 MOA
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

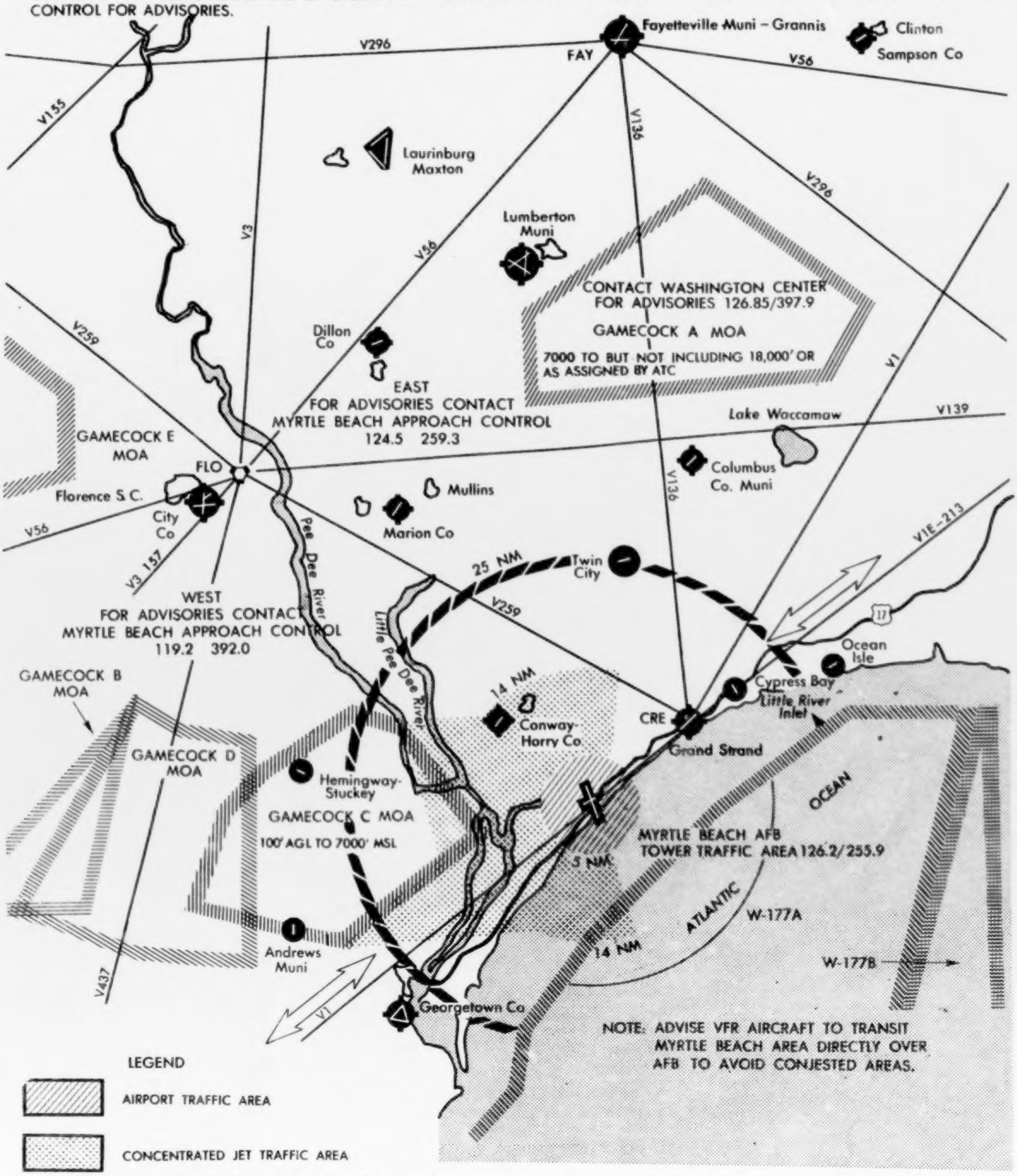
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

MYRTLE BEACH AFB, SOUTH CAROLINA

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OPERATING IN THE VICINITY OF MYRTLE BEACH AFB, SOUTH CAROLINA . VFR PILOTS TRANSITING OR OPERATING WITHIN THE AREA ARE ENCOURAGED TO CONTACT MYRTLE BEACH APPROACH CONTROL FOR ADVISORIES.


Fayetteville Muni – Grannis
FAY
Clinton
Sampson Co
V296
V56
V155
V136
V3
Laurinburg
Maxton
V296
Lumberton
Muni
V56
CONTACT WASHINGTON CENTER
FOR ADVISORIES 126.85/397.9
GAMECOCK A MOA
7000 TO BUT NOT INCLUDING 18,000' OR
AS ASSIGNED BY ATC
V1
V259
Dillon
Co
EAST
FOR ADVISORIES CONTACT
MYRTLE BEACH APPROACH CONTROL
124.5 259.3
Lake Waccamaw
V139
GAMECOCK E
MOA
FLO
Florence S.C.
City
Co
V56
Columbus
Co. Muni
V136
Mullins
Marion Co
Pee Dee River
V1E-213
V3 157
Twin
City
25 NM
WEST
FOR ADVISORIES CONTACT
MYRTLE BEACH APPROACH CONTROL
119.2 392.0
V259
Little Pee Dee River
17
Ocean
Isle
Cypress Bay
Little River
Inlet
GAMECOCK B
MOA
14 NM
Conway-
Horry Co.
CRE
Grand Strand
GAMECOCK D
MOA
Hemingway-
Stuckey
OCEAN
GAMECOCK C MOA
100' AGL TO 7000' MSL
MYRTLE BEACH AFB
TOWER TRAFFIC AREA 126.2/255.9
5 NM
ATLANTIC
W-177A
Andrews
Muni
14 NM
W-177B
V437
V1
Georgetown Co
LEGEND
AIRPORT TRAFFIC AREA
CONCENTRATED JET TRAFFIC AREA

NOTE: ADVISE VFR AIRCRAFT TO TRANSIT MYRTLE BEACH AREA DIRECTLY OVER AFB TO AVOID CONJESTED AREAS.

APPROACH CONTROL ADVISORY AREA
6000' MSL AND BELOW

RECOMMENDED VFR ROUTE

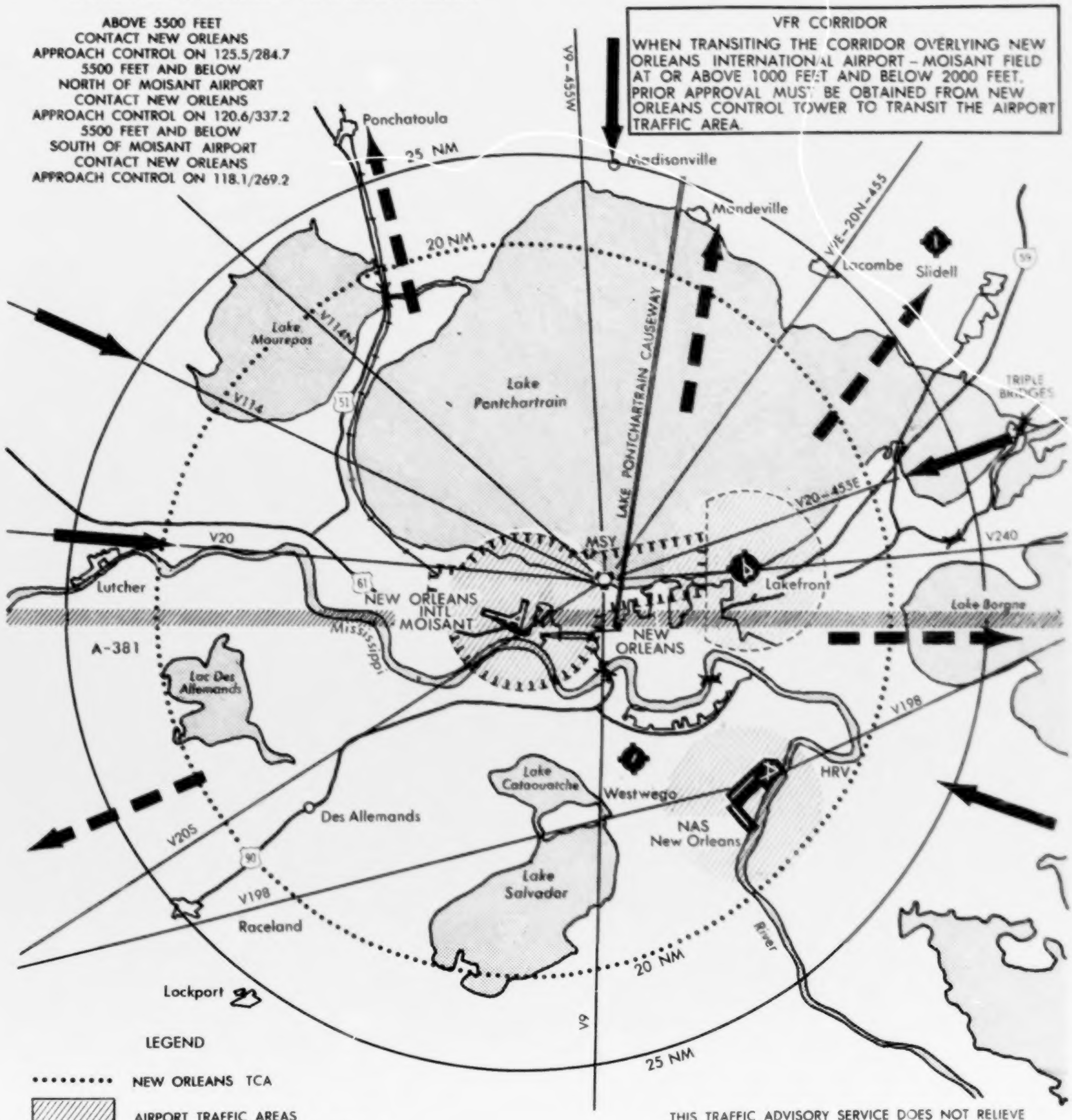
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

1 AUG 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW ORLEANS, LOUISIANA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE NEW ORLEANS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THIS AREA ARE ENCOURAGED TO CONTACT NEW ORLEANS RADAR.


Ponchatoula
25 NM
20 NM
Madisonville
Mandeville
V9-455W
V9E-20N-455
Lacombe
Slidell
59
Lake Maurepas
V114N
V114
51
Lake Pontchartrain
LAKE PONTCHARTRAIN CAUSEWAY
TRIPLE BRIDGES
V20-455E
V240
V20
MSY
Lutcher
61
NEW ORLEANS INTL MOISANT
Lakefront
Lake Borgne
Mississippi
NEW ORLEANS
A-381
Lac Des Allemands
V198
Lake Cataouatche
Westwego
HRV
NAS New Orleans
Des Allemands
V205
90
V198
Lake Salvador
River
Raceland
20 NM
Lockport
V9
25 NM

ABOVE 5500 FEET
CONTACT NEW ORLEANS
APPROACH CONTROL ON 125.5/284.7
5500 FEET AND BELOW
NORTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 120.6/337.2
5500 FEET AND BELOW
SOUTH OF MOISANT AIRPORT
CONTACT NEW ORLEANS
APPROACH CONTROL ON 118.1/269.2

VFR CORRIDOR

WHEN TRANSITING THE CORRIDOR OVERLYING NEW ORLEANS INTERNATIONAL AIRPORT – MOISANT FIELD AT OR ABOVE 1000 FEET AND BELOW 2000 FEET, PRIOR APPROVAL MUST BE OBTAINED FROM NEW ORLEANS CONTROL TOWER TO TRANSIT THE AIRPORT TRAFFIC AREA.

LEGEND

········· NEW ORLEANS TCA

▨ AIRPORT TRAFFIC AREAS
CONTACT THE APPROPRIATE TOWER

← ▬ ▬ ▬ PRIMARY TURBOJET DEPARTURE ROUTES

▬▶ PRIMARY TURBOJET ARRIVAL ROUTES

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

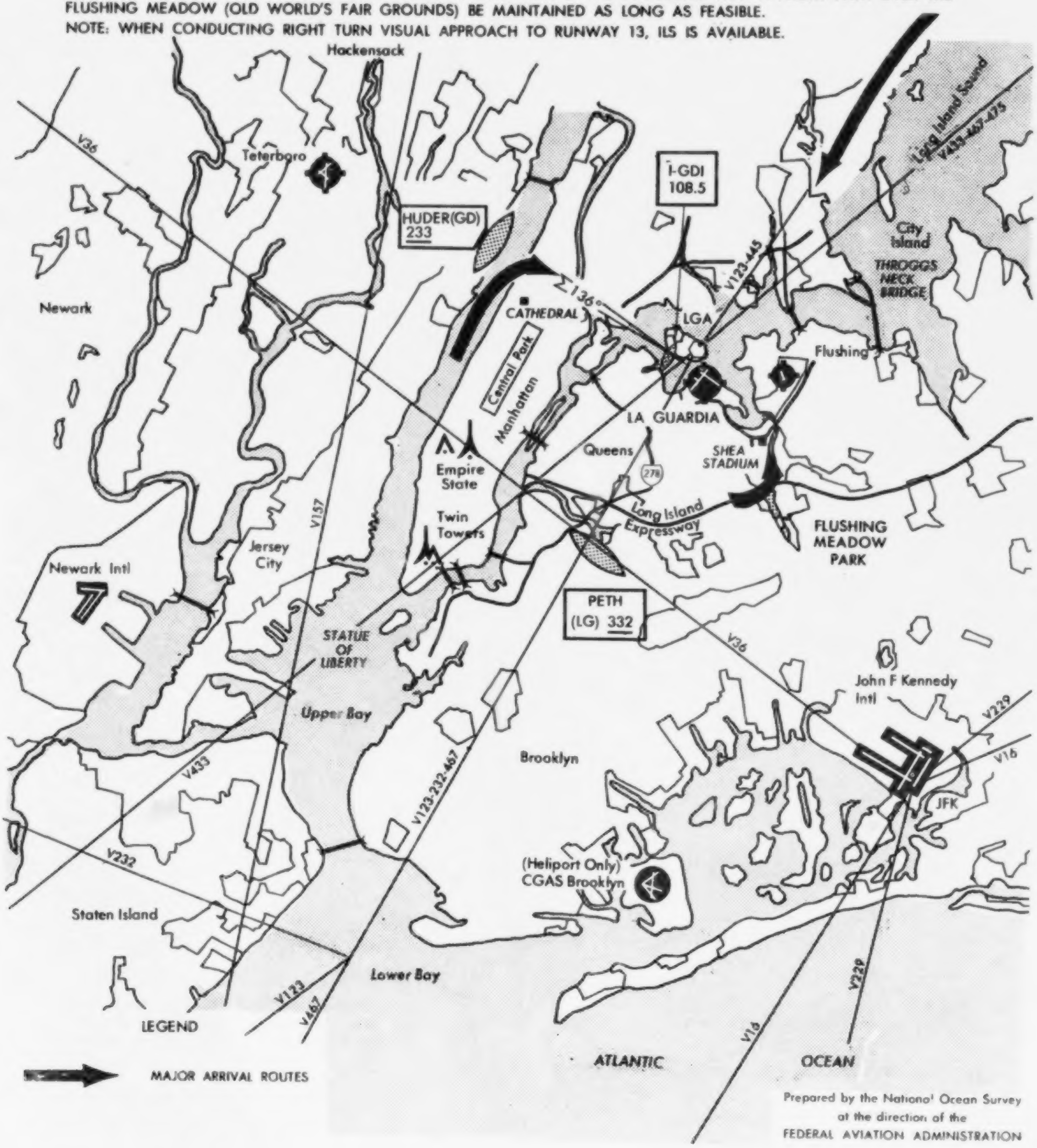
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NEW YORK, NY LA GUARDIA AIRPORT

THIS CHART HAS BEEN DEVELOPED TO AID PILOTS CONDUCTING VISUAL APPROACHES TO LA GUARDIA AIRPORT. 1. WHEN CONDUCTING VISUAL APPROACHES IT IS DESIRABLE THAT THE HIGHEST ALTITUDE PRACTICABLE IS MAINTAINED UNTIL DESCENT FOR LANDING IS BEGUN. 2. WHEN APPROACHING FROM THE NORTHEAST (LONG ISLAND SOUND) FLIGHT OVER THE OPEN WATER AREAS SHOULD BE MAINTAINED AS LONG AS POSSIBLE. ADHERENCE TO THE VOR TRACK IS ESSENTIAL TO MEET THE OBJECTIVES OF NOISE ABATEMENT WHEN THE VOR APPROACH IS BEING USED. 3. WHEN APPROACHING TO LAND ON RUNWAY 31, IT IS SUGGESTED THAT A FLIGHT PATH OVER THE FLUSHING MEADOW (OLD WORLD'S FAIR GROUNDS) BE MAINTAINED AS LONG AS FEASIBLE.
NOTE: WHEN CONDUCTING RIGHT TURN VISUAL APPROACH TO RUNWAY 13, ILS IS AVAILABLE.


Hackensack
V36
Teterboro
HUDER(GD)
233
I-GDI
108.5
Long Island Sound
V433-467-475
City Island
THROGGS NECK BRIDGE
V123-445
136
CATHEDRAL
LGA
Flushing
Newark
Central Park
Manhattan
LA GUARDIA
Empire State
Queens
278
SHEA STADIUM
Long Island Expressway
FLUSHING MEADOW PARK
Twin Towers
Jersey City
V157
Newark Intl
PETH
(LG) 332
STATUE OF LIBERTY
V36
John F Kennedy Intl
V229
V16
Upper Bay
Brooklyn
V433
JFK
V123-232-467
V232
(Heliport Only)
CGAS Brooklyn
Staten Island
Lower Bay
V123
V467
V16
V229
LEGEND
MAJOR ARRIVAL ROUTES
ATLANTIC
OCEAN

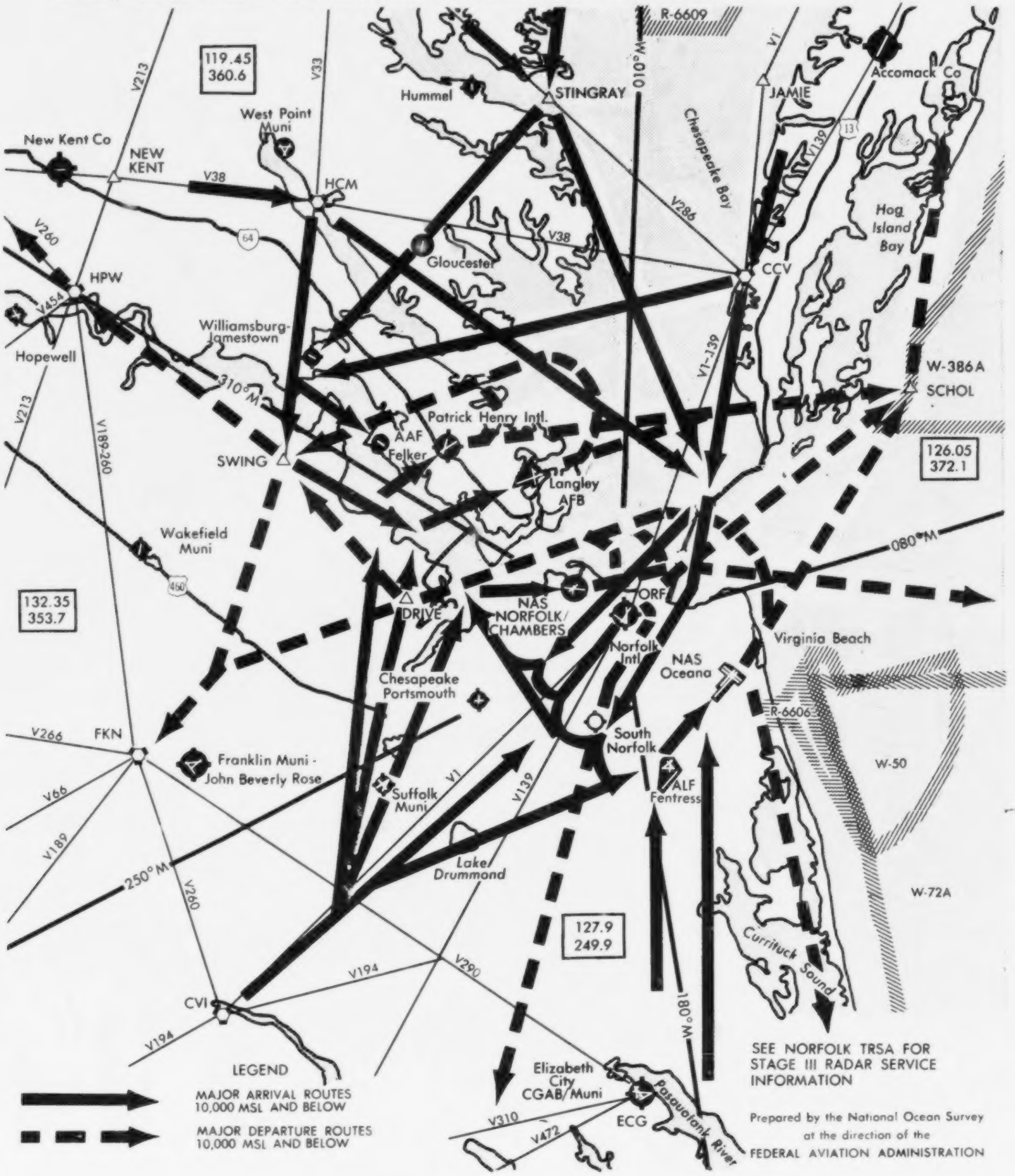
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

24 JAN 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

NORFOLK, VIRGINIA

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE NORFOLK TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA ARE ENCOURAGED TO CONTACT NORFOLK APPROACH CONTROL. THIS TRAFFIC ADVISORY DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. STAGE III RADAR SERVICE IS AVAILABLE FOR VFR AIRCRAFT LANDING/DEPARTING LANGLEY AFB, NAS NORFOLK AND NORFOLK INTERNATIONAL AIRPORT.


R-6609
V213
119.45
360.6
V33
010°M
V1
Hummel
STINGRAY
JAMIE
Accomack Co
Chesapeake Bay
West Point Muni
New Kent Co
NEW KENT
V38
HCM
V139
13
V286
V260
64
V38
Gloucester
CCV
Hog Island Bay
HPW
V454
Hopewell
Williamsburg-Jamestown
V1-139
W-386A
SCHOL
310°M
V213
V189-260
AAF Felker
Patrick Henry Intl.
SWING
Langley AFB
126.05
372.1
Wakefield Muni
080°M
460
132.35
353.7
DRIVE
NAS NORFOLK/CHAMBERS
ORF
Norfolk Intl
Virginia Beach
NAS Oceana
Chesapeake Portsmouth
R-6606
V266
FKN
Franklin Muni - John Beverly Rose
South Norfolk
W-50
V66
Suffolk Muni
V1
V139
ALF Fentress
V189
250°M
V260
Lake Drummond
W-72A
127.9
249.9
V194
V290
Currituck Sound
CVI
180°M
V194
Elizabeth City CGAB/Muni
ECG
Pasquotank River
V310
V472

LEGEND

MAJOR ARRIVAL ROUTES 10,000 MSL AND BELOW

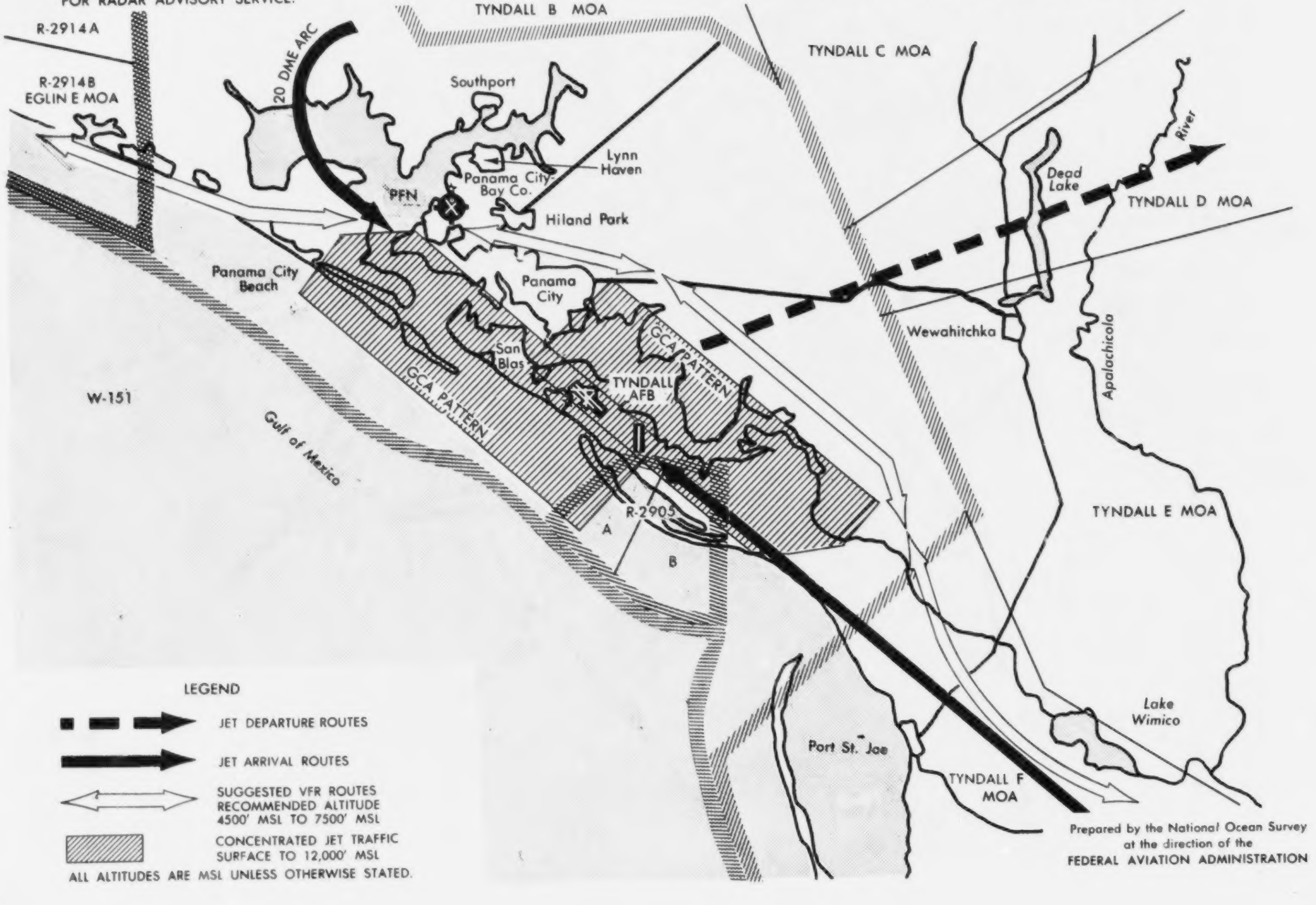
MAJOR DEPARTURE ROUTES 10,000 MSL AND BELOW

SEE NORFOLK TRSA FOR STAGE III RADAR SERVICE INFORMATION

Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

PANAMA CITY, TYNDALL AFB, FLA.

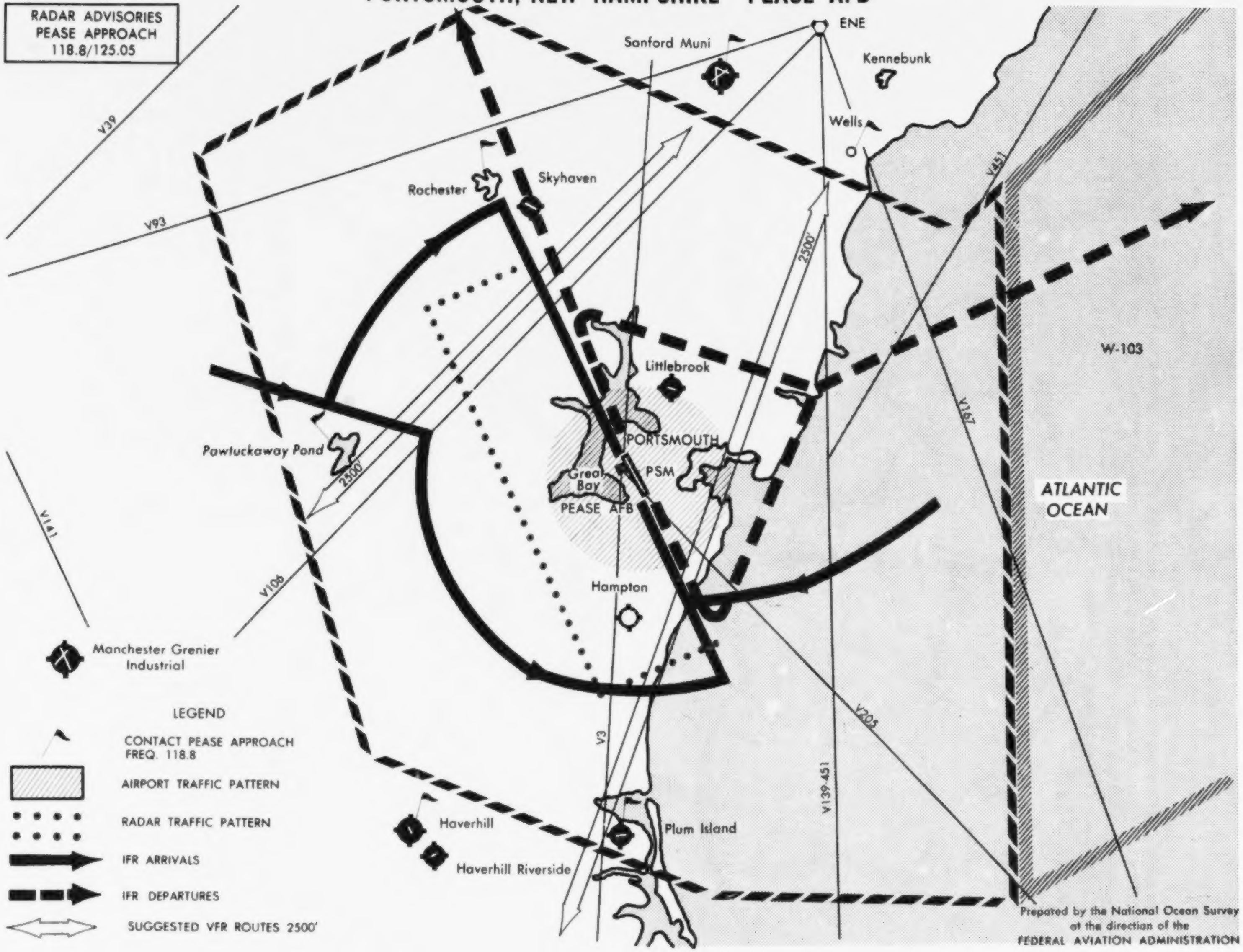
THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET AIRCRAFT TRAFFIC OPERATING IN VICINITY OF TYNDALL AFB, FLA. MANNED/UNMANNED DRONE OPERATIONS ARE CONDUCTED FROM SATELLITE DRONE RUNWAY 18/36 LOCATED 3.0 STATUTE MILES S/SE OF MAIN AIRFIELD DURING DAYLITE HOURS. VFR AIRCRAFT OVERFLYING THE AREA OR LANDING AT PANAMA CITY AIRPORT ARE URGED TO CONTACT TYNDALL APPROACH CONTROL ON 119.1 OR 119.75 FOR RADAR ADVISORY SERVICE.


TYNDALL B MOA
R-2914 A
R-2914 B
EGLIN E MOA
20 DME ARC
Southport
Lynn Haven
PFN
Panama City-Bay Co.
Hiland Park
TYNDALL C MOA
Dead Lake
River
TYNDALL D MOA
Panama City Beach
Panama City
Wewahitchka
Apalachicola
San Blas
GCA PATTERN
GCA PATTERN
TYNDALL AFB
W-151
Gulf of Mexico
R-2905
A
B
TYNDALL E MOA
Lake Wimico
Port St. Joe
TYNDALL F MOA
LEGEND
JET DEPARTURE ROUTES
JET ARRIVAL ROUTES
SUGGESTED VFR ROUTES RECOMMENDED ALTITUDE 4500' MSL TO 7500' MSL
CONCENTRATED JET TRAFFIC SURFACE TO 12,000' MSL
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PORTSMOUTH, NEW HAMPSHIRE PEASE AFB

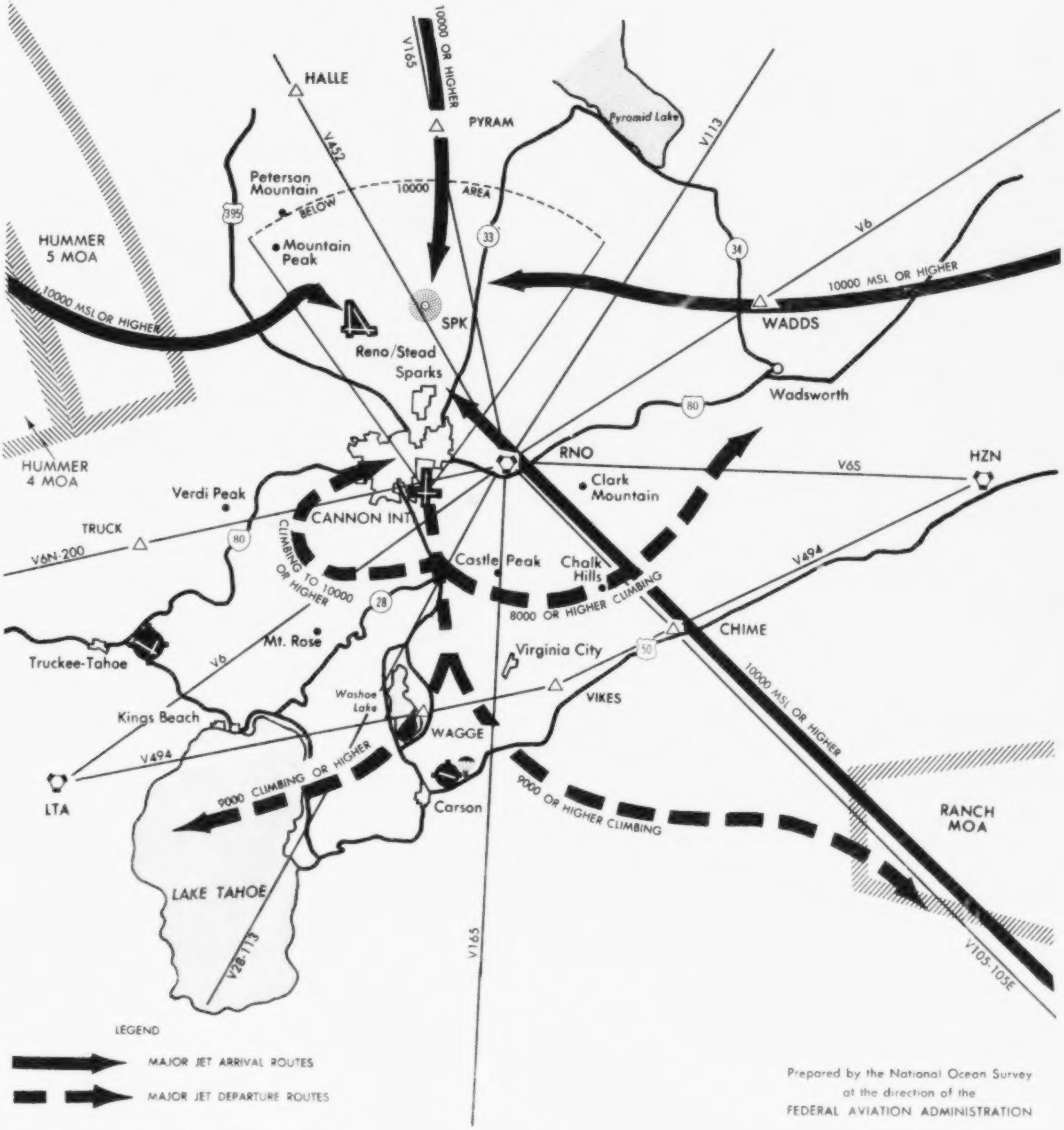

RADAR ADVISORIES
PEASE APPROACH
118.8/125.05
ENE
Sanford Muni
Kennebunk
Wells
Rochester
Skyhaven
V39
V93
Littlebrook
PORTSMOUTH
PSM
Great Bay
PEASE AFB
Pawtuckaway Pond
2500'
V141
V106
Hampton
Manchester Grenier Industrial
V3
V139-451
V205
V167
V451
W-103
ATLANTIC OCEAN
Haverhill
Haverhill Riverside
Plum Island
LEGEND
CONTACT PEASE APPROACH FREQ. 118.8
AIRPORT TRAFFIC PATTERN
RADAR TRAFFIC PATTERN
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES 2500'

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

RENO, NEVADA

THIS GRAPHIC SHOWS THE PRINCIPAL IFR JET TRAFFIC FLOWS. FOR STAGE II SERVICES, AIRCRAFT LANDING AT RENO OR STEAD MONITOR ATIS ON 125.8 25 NM OUT FOR FREQUENCY ASSIGNMENT. RADAR TRAFFIC ADVISORY SERVICE WILL BE PROVIDED VFR AIRCRAFT ON A TRAFFIC PERMITTING BASIS. THIS SERVICE DOES NOT RELIEVE PILOTS OF THEIR RESPONSIBILITY TO SEE AND AVOID OTHER AIRCRAFT. STAGE II RADAR SERVICE IS EXPLAINED IN THE AIM.


V165
10000 OR HIGHER
HALLE
PYRAM
Pyramid Lake
V113
V452
Peterson Mountain
10000
AREA
BELOW
395
33
34
V6
HUMMER 5 MOA
Mountain Peak
10000 MSL OR HIGHER
10000 MSL OR HIGHER
WADDS
SPK
Reno/Stead
Sparks
Wadsworth
80
HUMMER 4 MOA
RNO
Clark Mountain
V6S
HZN
Verdi Peak
CANNON INT
TRUCK
80
V6N-200
CLIMBING TO 10000 OR HIGHER
Castle Peak
Chalk Hills
8000 OR HIGHER CLIMBING
V494
28
CHIME
Mt. Rose
Virginia City
50
Truckee-Tahoe
V6
VIKES
10000 MSL OR HIGHER
Kings Beach
Washoe Lake
WAGGE
V494
9000 CLIMBING OR HIGHER
9000 OR HIGHER CLIMBING
LTA
Carson
RANCH MOA
LAKE TAHOE
V165
V28-113
V105-105E
LEGEND
MAJOR JET ARRIVAL ROUTES
MAJOR JET DEPARTURE ROUTES

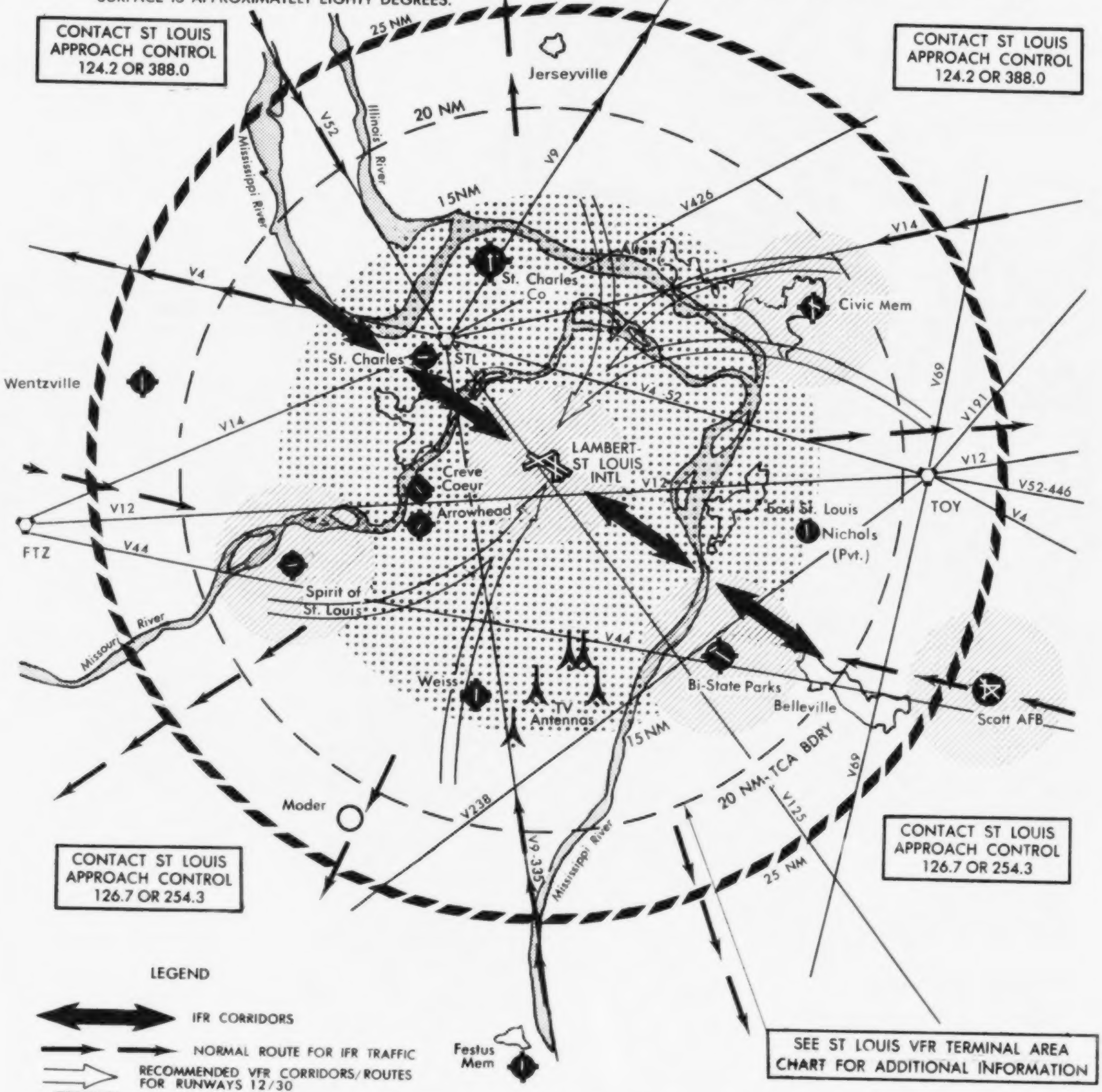
Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

ST. LOUIS, MISSOURI

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE ST. LOUIS TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT ST. LOUIS RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC. HIGH PERFORMANCE FIGHTER TYPE JET AIRCRAFT DEPARTING MAXIMUM CLIMB ABOVE 8000 FEET, FIVE NAUTICAL MILE RADIUS OF AIRPORT. PITCH ANGLE FROM SURFACE IS APPROXIMATELY EIGHTY DEGREES.


25 NM
20 NM
15NM
Jerseyville
V52
Illinois River
Mississippi River
V9
V426
V14
V4
Alton
St. Charles Co
Civic Mem
St. Charles
STL
Wentzville
V4-52
V69
V191
V14
LAMBERT-ST LOUIS INTL
V12
TOY
V52-446
V4
V12
Creve Coeur
Arrowhead
East St. Louis
Nichols (Pvt.)
FTZ
V44
Spirit of St. Louis
Missouri River
V44
Weiss
TV Antennas
Bi-State Parks
Belleville
Scott AFB
15 NM
20 NM-TCA BDRY
V69
V125
V238
Moder
V9-335
Mississippi River
25 NM
Festus Mem

CONTACT ST LOUIS
APPROACH CONTROL
124.2 OR 388.0

CONTACT ST LOUIS
APPROACH CONTROL
124.2 OR 388.0

CONTACT ST LOUIS
APPROACH CONTROL
126.7 OR 254.3

CONTACT ST LOUIS
APPROACH CONTROL
126.7 OR 254.3

SEE ST LOUIS VFR TERMINAL AREA CHART FOR ADDITIONAL INFORMATION

LEGEND

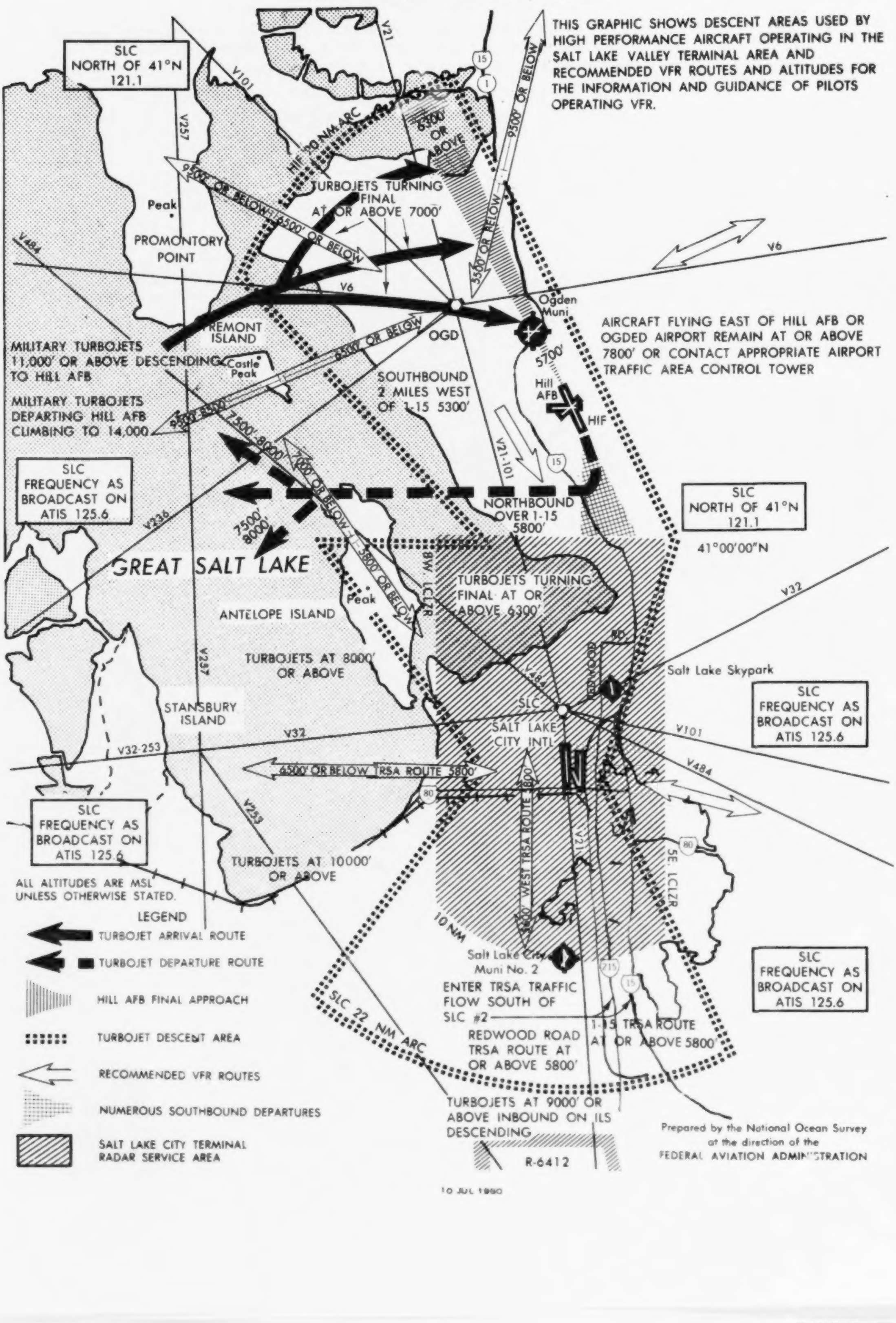
- ⟺ IFR CORRIDORS
- → → NORMAL ROUTE FOR IFR TRAFFIC
- ⇨ RECOMMENDED VFR CORRIDORS/ROUTES FOR RUNWAYS 12/30
- ▨ AIRPORT TRAFFIC AREA--CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87
- ⁘ AREA OF HEAVY TRAFFIC BETWEEN 5 NM AND 15 NM FROM 2400′ TO 8000′ MSL
- ▬ ▬ AREA OF HEAVY TRAFFIC BETWEEN 15 NM AND 25 NM FROM 5000′ TO 10,000′ MSL

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SALT LAKE VALLEY, UTAH



THIS GRAPHIC SHOWS DESCENT AREAS USED BY HIGH PERFORMANCE AIRCRAFT OPERATING IN THE SALT LAKE VALLEY TERMINAL AREA AND RECOMMENDED VFR ROUTES AND ALTITUDES FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR.

AIRCRAFT FLYING EAST OF HILL AFB OR OGDED AIRPORT REMAIN AT OR ABOVE 7800′ OR CONTACT APPROPRIATE AIRPORT TRAFFIC AREA CONTROL TOWER

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

SLC NORTH OF 41°N 121.1
V21
15
1
V101
V257
HIF 20 NM ARC
6300′ OR ABOVE
9500′ OR BELOW
TURBOJETS TURNING FINAL AT OR ABOVE 7000′
9500′ OR BELOW 6500′ OR BELOW
Peak
PROMONTORY POINT
V484
V6
3500′ OR BELOW
OGD
Ogden Muni
FREMONT ISLAND
MILITARY TURBOJETS 11,000′ OR ABOVE DESCENDING TO HILL AFB
Castle Peak
6500′ OR BELOW
5700′
SOUTHBOUND 2 MILES WEST OF I-15 5300′
Hill AFB
HIF
MILITARY TURBOJETS DEPARTING HILL AFB CLIMBING TO 14,000
9500′ 8500′
7500′ 8000′
7000′ OR BELOW
V21-101
15
SLC FREQUENCY AS BROADCAST ON ATIS 125.6
V236
7500′ 8000′
NORTHBOUND OVER I-15 5800′
SLC NORTH OF 41°N 121.1
41°00′00″N
GREAT SALT LAKE
5800′ OR BELOW
NW. LCLZR
TURBOJETS TURNING FINAL AT OR ABOVE 6300′
V32
Peak
ANTELOPE ISLAND
TURBOJETS AT 8000′ OR ABOVE
V257
V484
SD
REDWOOD RD
Salt Lake Skypark
SLC
SALT LAKE CITY INTL
STANSBURY ISLAND
SLC FREQUENCY AS BROADCAST ON ATIS 125.6
V32
V32-253
V101
6500′ OR BELOW TRSA ROUTE 5800′
80
V484
V253
SLC FREQUENCY AS BROADCAST ON ATIS 125.6
5800 WEST TRSA ROUTE 5800′
V21
80
SE. LCLZR
TURBOJETS AT 10000′ OR ABOVE
10 NM
Salt Lake City Muni No. 2
215
15
ENTER TRSA TRAFFIC FLOW SOUTH OF SLC #2
I-15 TRSA ROUTE AT OR ABOVE 5800′
REDWOOD ROAD TRSA ROUTE AT OR ABOVE 5800′
SLC FREQUENCY AS BROADCAST ON ATIS 125.6
SLC 22 NM ARC
TURBOJETS AT 9000′ OR ABOVE INBOUND ON ILS DESCENDING
R-6412
LEGEND
TURBOJET ARRIVAL ROUTE
TURBOJET DEPARTURE ROUTE
HILL AFB FINAL APPROACH
TURBOJET DESCENT AREA
RECOMMENDED VFR ROUTES
NUMEROUS SOUTHBOUND DEPARTURES
SALT LAKE CITY TERMINAL RADAR SERVICE AREA

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

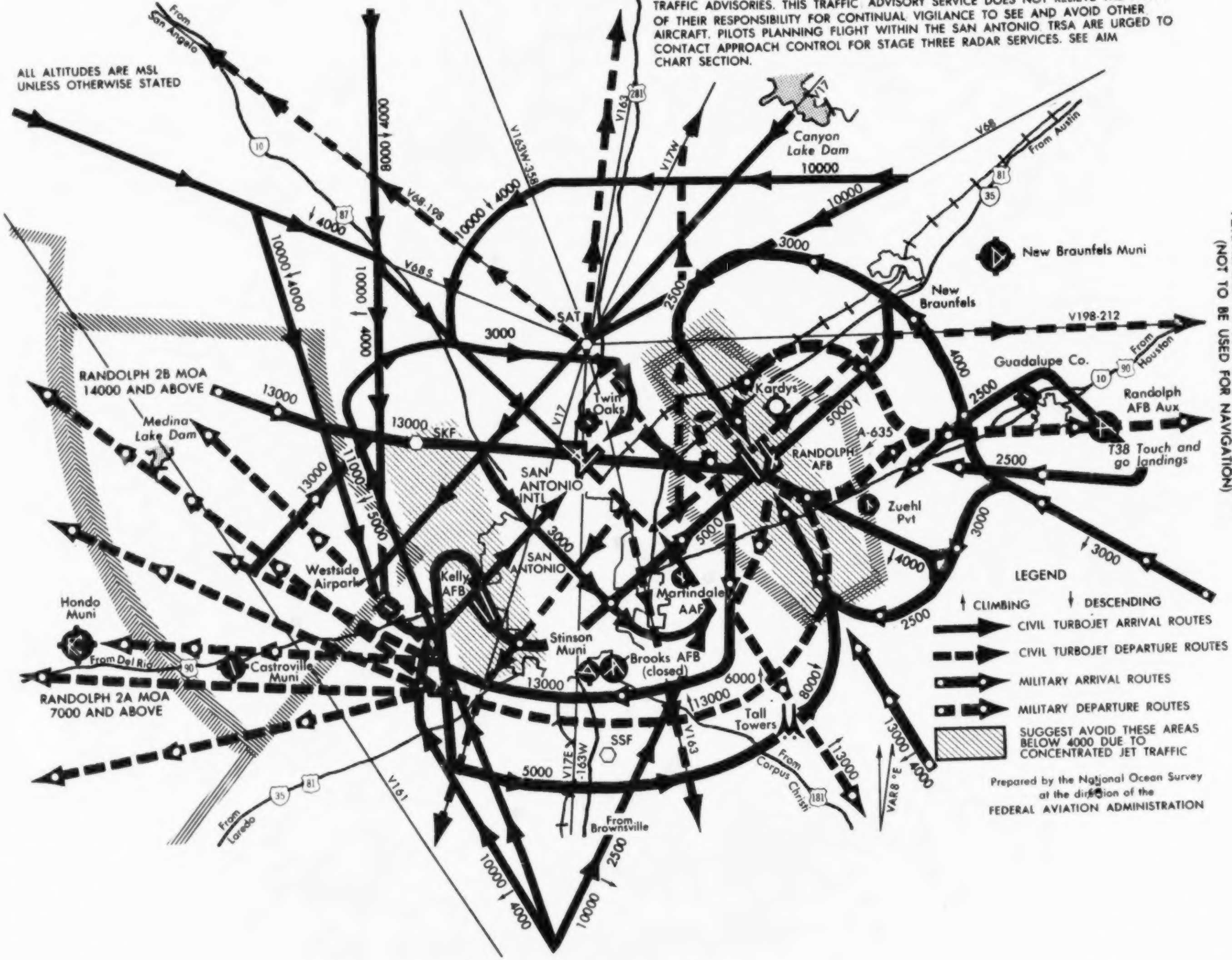
TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

SAN ANTONIO, TEXAS

RANDOLPH AFB T-37/T-38 ARRIVAL/DEPARTURE ROUTES AND CIVIL TURBOJET ARRIVAL/DEPARTURE ROUTES FOR SAN ANTONIO INTERNATIONAL

HIGH VOLUME OF JET OPERATIONS ALONG ROUTES INDICATED VFR PILOTS ARE ENCOURAGED TO CONTACT SAN ANTONIO APPROACH CONTROL 25 MILES OUT FOR TRAFFIC ADVISORIES. THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. PILOTS PLANNING FLIGHT WITHIN THE SAN ANTONIO TRSA ARE URGED TO CONTACT APPROACH CONTROL FOR STAGE THREE RADAR SERVICES. SEE AIM CHART SECTION.


ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED
From San Angelo
10
87
V68-198
8000 4000
10000 4000
4000
V68S
10000 4000
V163W-358
V163
281
V17W
Canyon Lake Dam
V17
10000
V68
From Austin
81
35
New Braunfels Muni
New Braunfels
3000
SAT
2500
3000
V198-212
From Houston
90
Guadalupe Co.
Randolph AFB Aux
T38 Touch and go landings
4000
2500
RANDOLPH 2B MOA 14000 AND ABOVE
13000
Medina Lake Dam
13000 SKF
Twin Oaks
V17
SAN ANTONIO INTL
Kardys
5000
A-635
RANDOLPH AFB
Zuehl Pvt
11000 5000
13000
Westside Airport
Kelly AFB
SAN ANTONIO
3000
5000
Martindale AAF
3000
4000
3000
2500
Hondo Muni
From Del Rio
90
Castroville Muni
RANDOLPH 2A MOA 7000 AND ABOVE
Stinson Muni
Brooks AFB (closed)
13000
6000
13000
8000
Tall Towers
SSF
V17E
-163W
V163
From Corpus Christi
181
13000
VAR 8°E
13000 4000
5000
V161
From Laredo
35
81
From Brownsville
10000 4000
10000 2500

LEGEND

↑ CLIMBING ↓ DESCENDING

- CIVIL TURBOJET ARRIVAL ROUTES
- CIVIL TURBOJET DEPARTURE ROUTES
- MILITARY ARRIVAL ROUTES
- MILITARY DEPARTURE ROUTES
- ▨ SUGGEST AVOID THESE AREAS BELOW 4000 DUE TO CONCENTRATED JET TRAFFIC

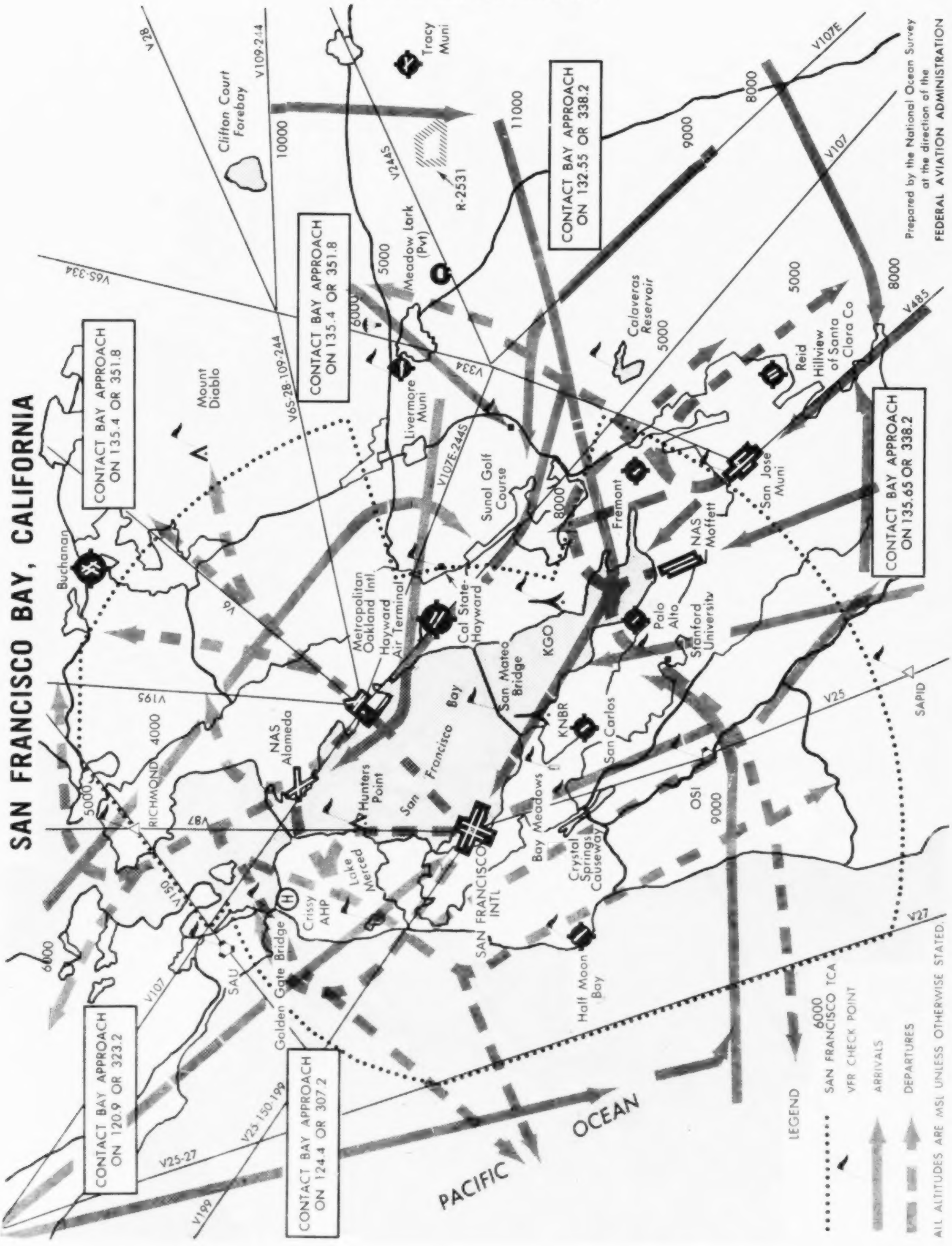
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE

(NOT TO BE USED FOR NAVIGATION)

SAN FRANCISCO BAY, CALIFORNIA

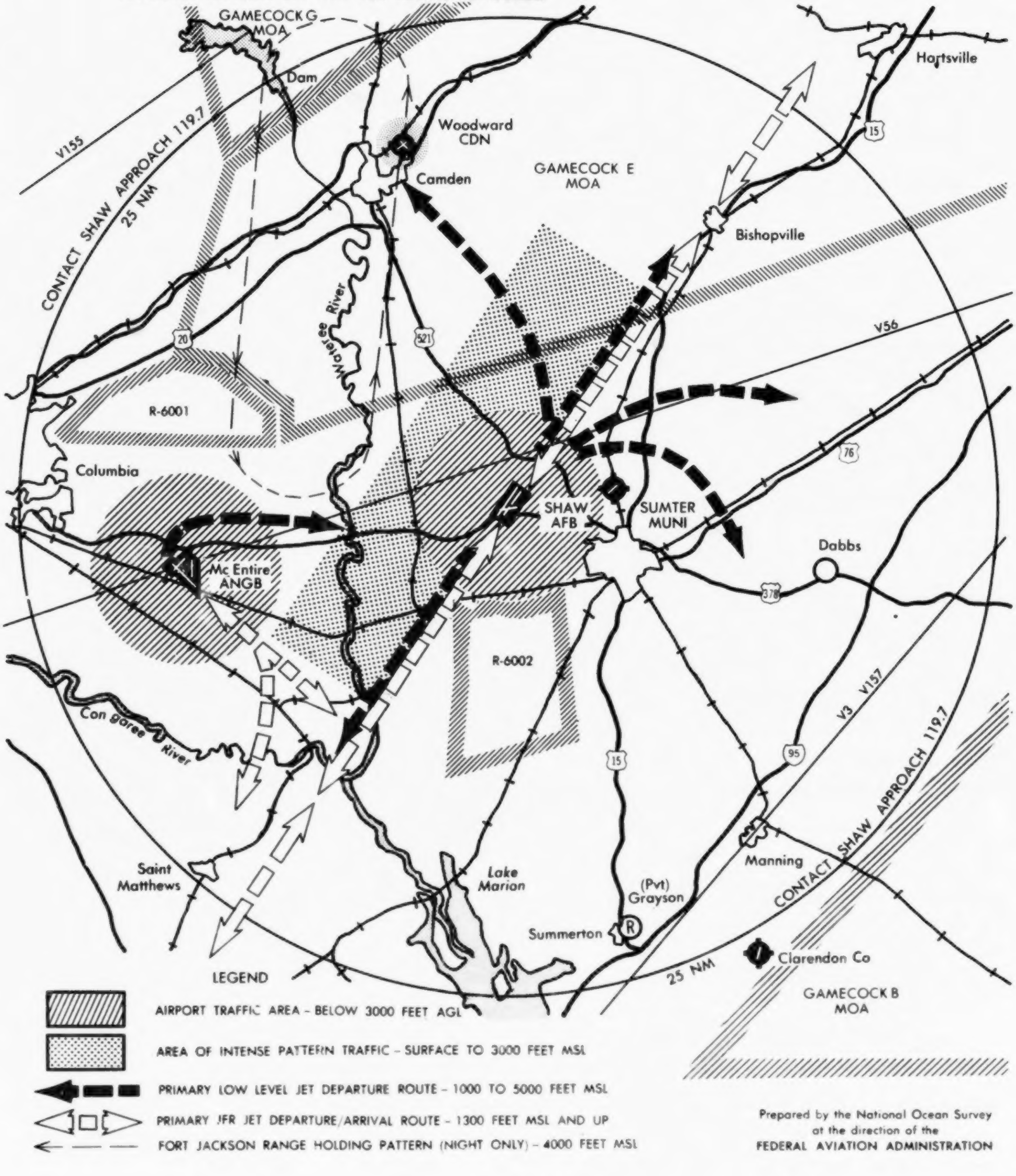

CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 135.4 OR 351.8
CONTACT BAY APPROACH ON 132.55 OR 338.2
CONTACT BAY APPROACH ON 135.65 OR 338.2
CONTACT BAY APPROACH ON 120.9 OR 323.2
CONTACT BAY APPROACH ON 124.4 OR 307.2
Clifton Court Forebay
Tracy Muni
R-2531
Meadow Lark (Pvt)
Mount Diablo
Livermore Muni
Buchanan
Metropolitan Oakland Intl
Hayward Air Terminal
Cal State-Hayward
Sunol Golf Course
Calaveras Reservoir
Reid Hillview of Santa Clara Co
San Jose Muni
NAS Moffett
Fremont
Palo Alto
Stanford University
KGO
San Mateo Bridge
San Francisco Bay
NAS Alameda
Hunters Point
KNBR
San Carlos
Bay Meadows
Crystal Springs Causeway
OSI
SAN FRANCISCO INTL
Lake Merced
Crissy AHP
Golden Gate Bridge
SAU
RICHMOND
Half Moon Bay
PACIFIC OCEAN
SAPID
V28
V109-244
V244S
V6S-334
V6S-28-109-244
V334
V107E-244S
V107E
V107
V485
V6
V195
V87
V150
V107
V25
V27
V25-27
V25-150-199
V199
10000
11000
9000
8000
5000
5000
5000
5000
8000
8000
4000
5000
6000
9000
LEGEND
6000 SAN FRANCISCO TCA
VFR CHECK POINT
ARRIVALS
DEPARTURES
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

SUMTER, SHAW AFB SOUTH CAROLINA

THIS MAP SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE SHAW TERMINAL AREA. PILOTS INTENDING TO OPERATE VFR WITHIN THE AREA AT OR BELOW 6000 FEET MSL ARE ENCOURAGED TO CONTACT SHAW APPROACH CONTROL ON 119.7 FOR TRAFFIC ADVISORIES.


GAMECOCK G MOA
Dam
Woodward CDN
Camden
GAMECOCK E MOA
Hartsville
15
Bishopville
V155
CONTACT SHAW APPROACH 119.7
25 NM
20
521
Wateree River
V56
R-6001
76
Columbia
SHAW AFB
SUMTER MUNI
Dabbs
378
Mc Entire ANGB
R-6002
Congaree River
15
95
V3 V157
CONTACT SHAW APPROACH 119.7
Saint Matthews
Lake Marion
(Pvt) Grayson
R
Manning
Summerton
Clarendon Co
25 NM
GAMECOCK B MOA

LEGEND

▨ AIRPORT TRAFFIC AREA – BELOW 3000 FEET AGL

▒ AREA OF INTENSE PATTERN TRAFFIC – SURFACE TO 3000 FEET MSL

◀■■■ PRIMARY LOW LEVEL JET DEPARTURE ROUTE – 1000 TO 5000 FEET MSL

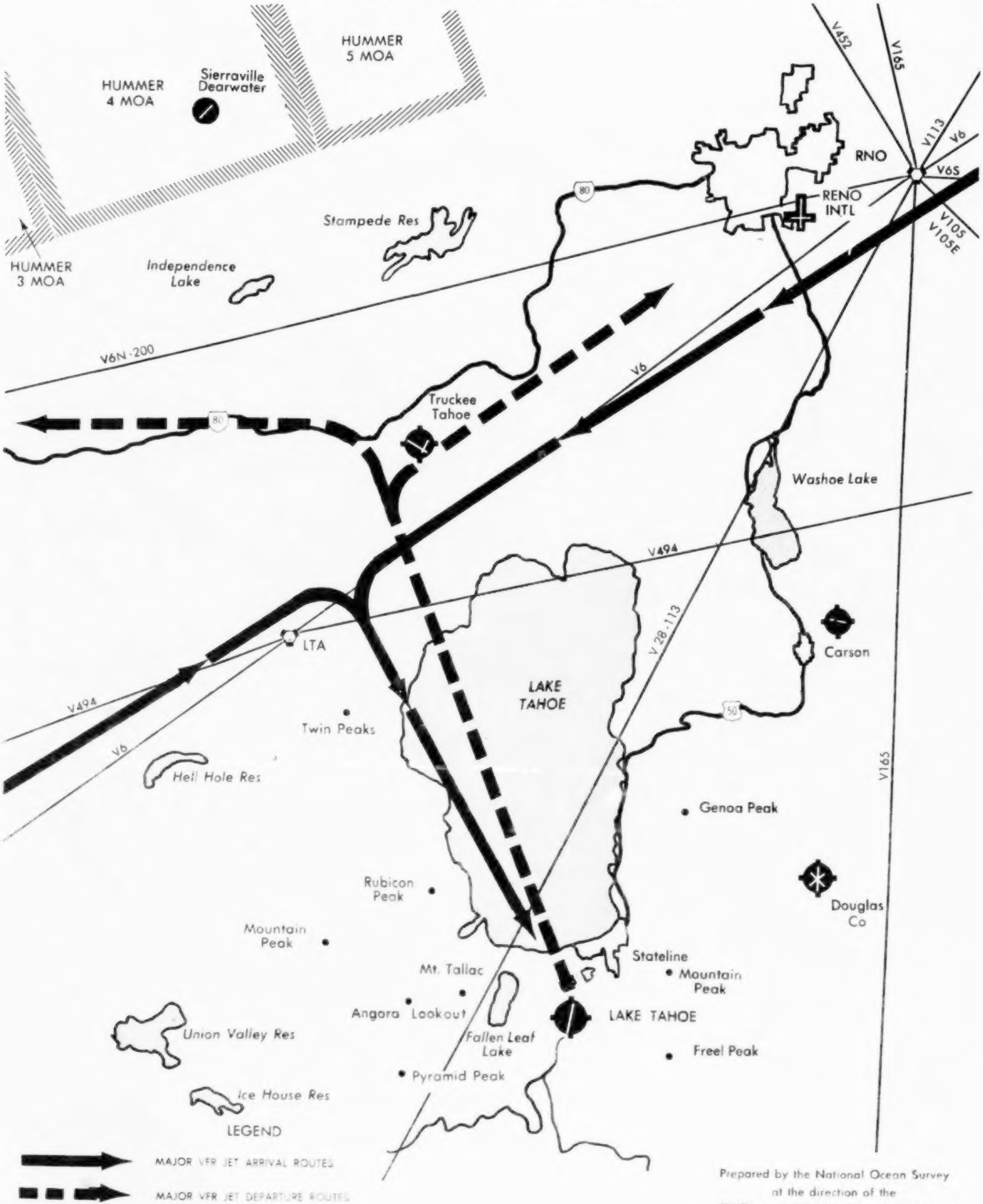
◁□▷ PRIMARY IFR JET DEPARTURE/ARRIVAL ROUTE – 1300 FEET MSL AND UP

← — — FORT JACKSON RANGE HOLDING PATTERN (NIGHT ONLY) – 4000 FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAHOE VALLEY, CALIFORNIA

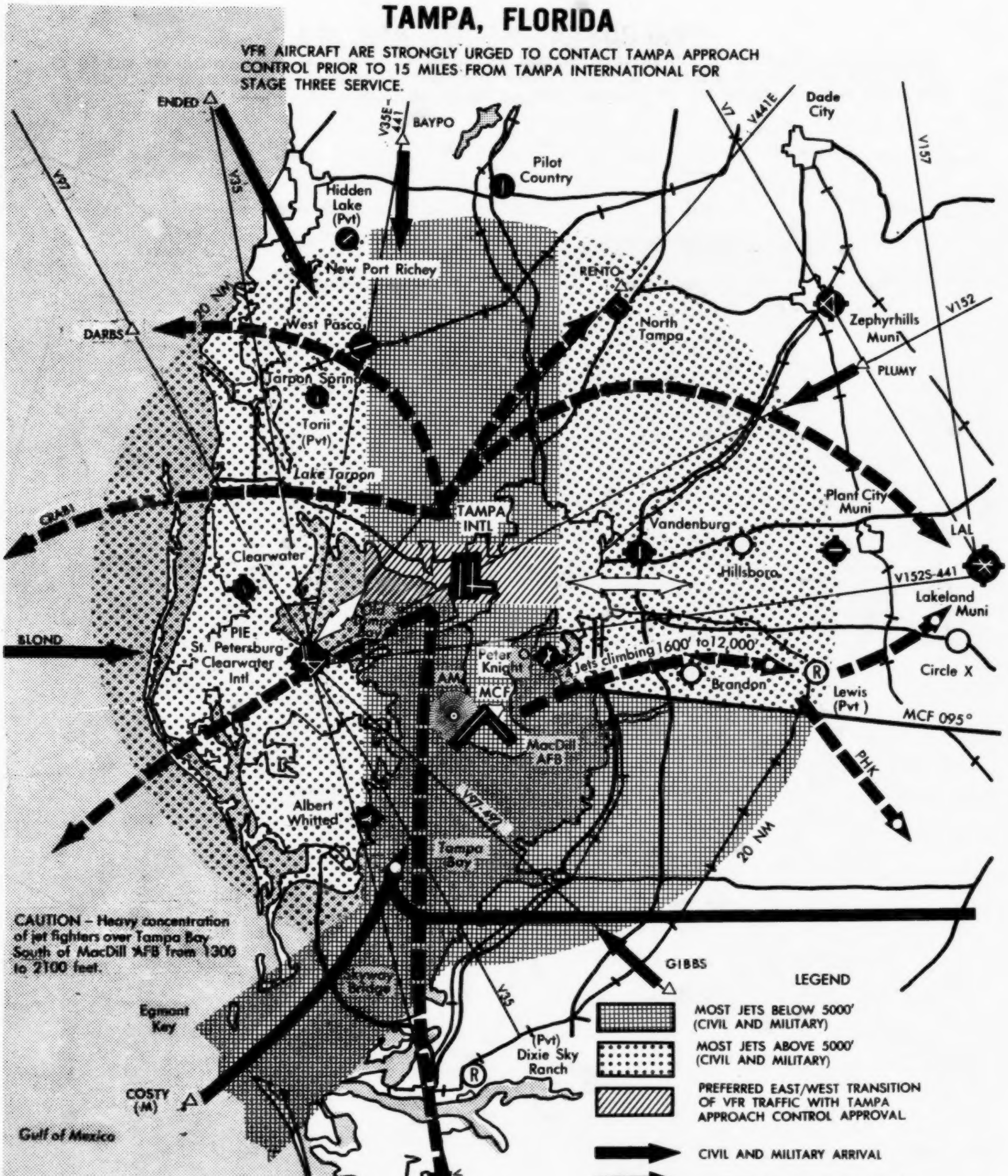

HUMMER 5 MOA
HUMMER 4 MOA
Sierraville Dearwater
HUMMER 3 MOA
V452
V165
V113
V6
V6S
RNO
RENO INTL
V10S
V10SE
80
Stampede Res
Independence Lake
V6N-200
V6
Truckee Tahoe
80
Washoe Lake
V494
V28-113
Carson
LTA
V494
V6
LAKE TAHOE
50
Twin Peaks
Hell Hole Res
V165
Genoa Peak
Rubicon Peak
Douglas Co
Mountain Peak
Stateline
Mountain Peak
Mt. Tallac
Angora Lookout
LAKE TAHOE
Fallen Leaf Lake
Freel Peak
Union Valley Res
Pyramid Peak
Ice House Res
LEGEND
MAJOR VFR JET ARRIVAL ROUTES
MAJOR VFR JET DEPARTURE ROUTES

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA

VFR AIRCRAFT ARE STRONGLY URGED TO CONTACT TAMPA APPROACH CONTROL PRIOR TO 15 MILES FROM TAMPA INTERNATIONAL FOR STAGE THREE SERVICE.


ENDED
V35E-441
BAYPO
V7
V441E
Dade City
V157
Pilot Country
Hidden Lake (Pvt)
V37
V35
New Port Richey
RENTO
North Tampa
Zephyrhills Muni
V152
DARBS
20 NM
West Pasco
PLUMY
Tarpon Springs
Torii (Pvt)
Lake Tarpon
CRABI
TAMPA INTL
Plant City Muni
LAL
Vandenburg
Hillsboro
V152S-441
Clearwater
Lakeland Muni
BLOND
Old Tampa Bay
PIE St. Petersburg-Clearwater Intl
Peter O Knight
Jets climbing 1600' to 12,000'
Circle X
AM
MCF
Brandon
Lewis (Pvt)
MCF 095°
MacDill AFB
PHK
Albert Whitted
V97-492
Tampa Bay
20 NM
GIBBS
Skyway Bridge
V35
Egmont Key
(Pvt) Dixie Sky Ranch
COSTY (M)
Gulf of Mexico
V35W
SRQ Sarasota-Bradenton
Sarasota Bay
LEGEND
MOST JETS BELOW 5000' (CIVIL AND MILITARY)
MOST JETS ABOVE 5000' (CIVIL AND MILITARY)
PREFERRED EAST/WEST TRANSITION OF VFR TRAFFIC WITH TAMPA APPROACH CONTROL APPROVAL
CIVIL AND MILITARY ARRIVAL
MILITARY ARRIVAL BELOW 5000'
MILITARY DEPARTURE
CIVIL DEPARTURE
VFR TRAFFIC
ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

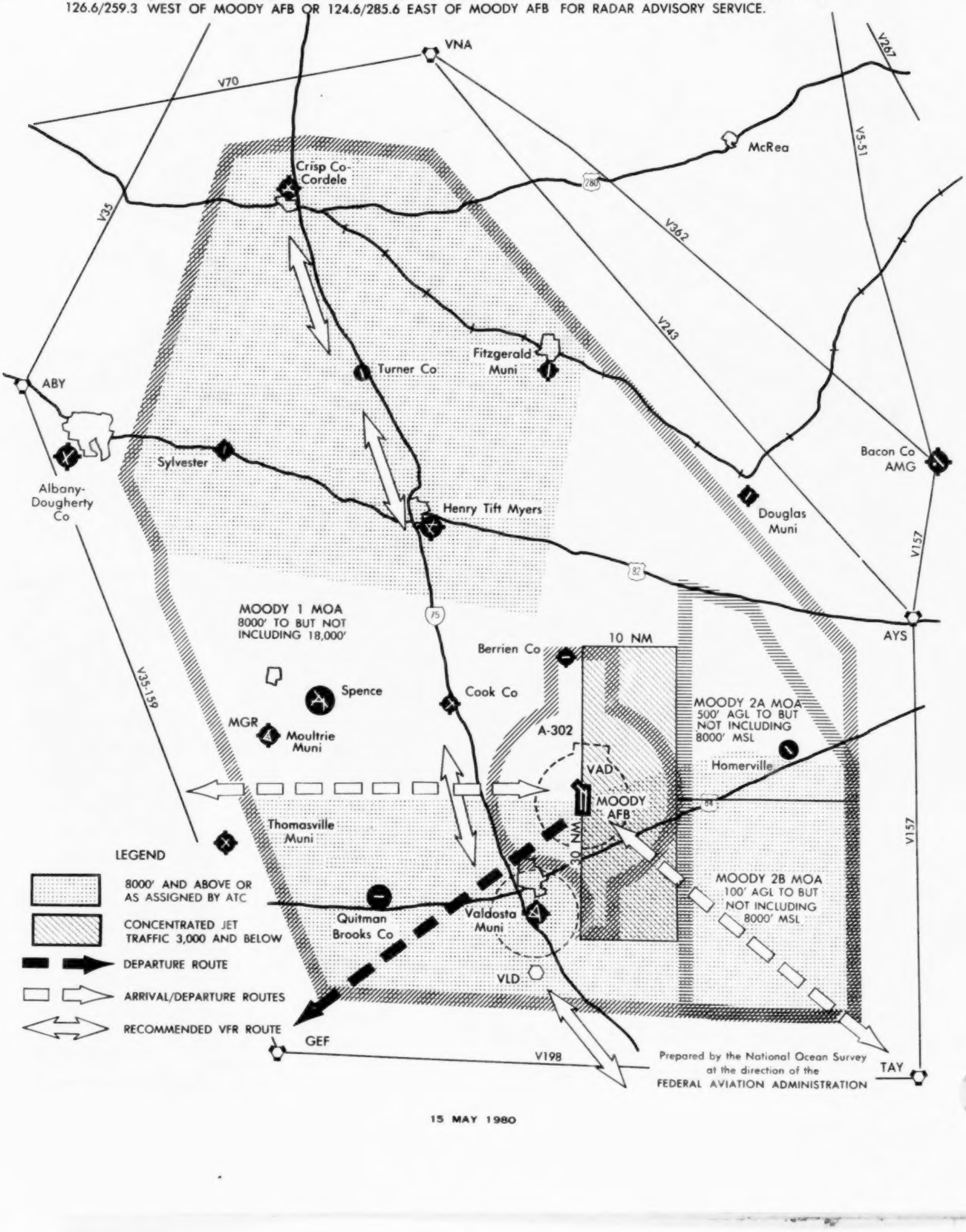
CAUTION – Heavy concentration of jet fighters over Tampa Bay South of MacDill AFB from 1300 to 2100 feet.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

VALDOSTA, MOODY AFB, GA.

THIS CHART SHOWS AREAS OF CONCENTRATED MILITARY JET TRAFFIC OF F-4 AIRCRAFT OPERATING IN THE VICINITY OF MOODY AFB, GEORGIA. VFR AIRCRAFT OVERFLYING THE AREA ARE URGED TO CONTACT VALDOSTA APPROACH ON 126.6/259.3 WEST OF MOODY AFB OR 124.6/285.6 EAST OF MOODY AFB FOR RADAR ADVISORY SERVICE.


VNA
V70
V267
McRea
V5-51
Crisp Co-Cordele
280
V35
V362
V243
Fitzgerald Muni
Turner Co
ABY
Sylvester
Bacon Co AMG
Albany-Dougherty Co
Henry Tift Myers
Douglas Muni
V157
82
MOODY 1 MOA
8000' TO BUT NOT INCLUDING 18,000'
75
AYS
10 NM
Berrien Co
V35-159
Spence
Cook Co
MOODY 2A MOA
500' AGL TO BUT NOT INCLUDING 8000' MSL
MGR
Moultrie Muni
A-302
Homerville
VAD
MOODY AFB
84
30 NM
Thomasville Muni
V157
LEGEND
8000' AND ABOVE OR AS ASSIGNED BY ATC
CONCENTRATED JET TRAFFIC 3,000 AND BELOW
DEPARTURE ROUTE
ARRIVAL/DEPARTURE ROUTES
RECOMMENDED VFR ROUTE
MOODY 2B MOA
100' AGL TO BUT NOT INCLUDING 8000' MSL
Quitman Brooks Co
Valdosta Muni
VLD
GEF
V198
TAY

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FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

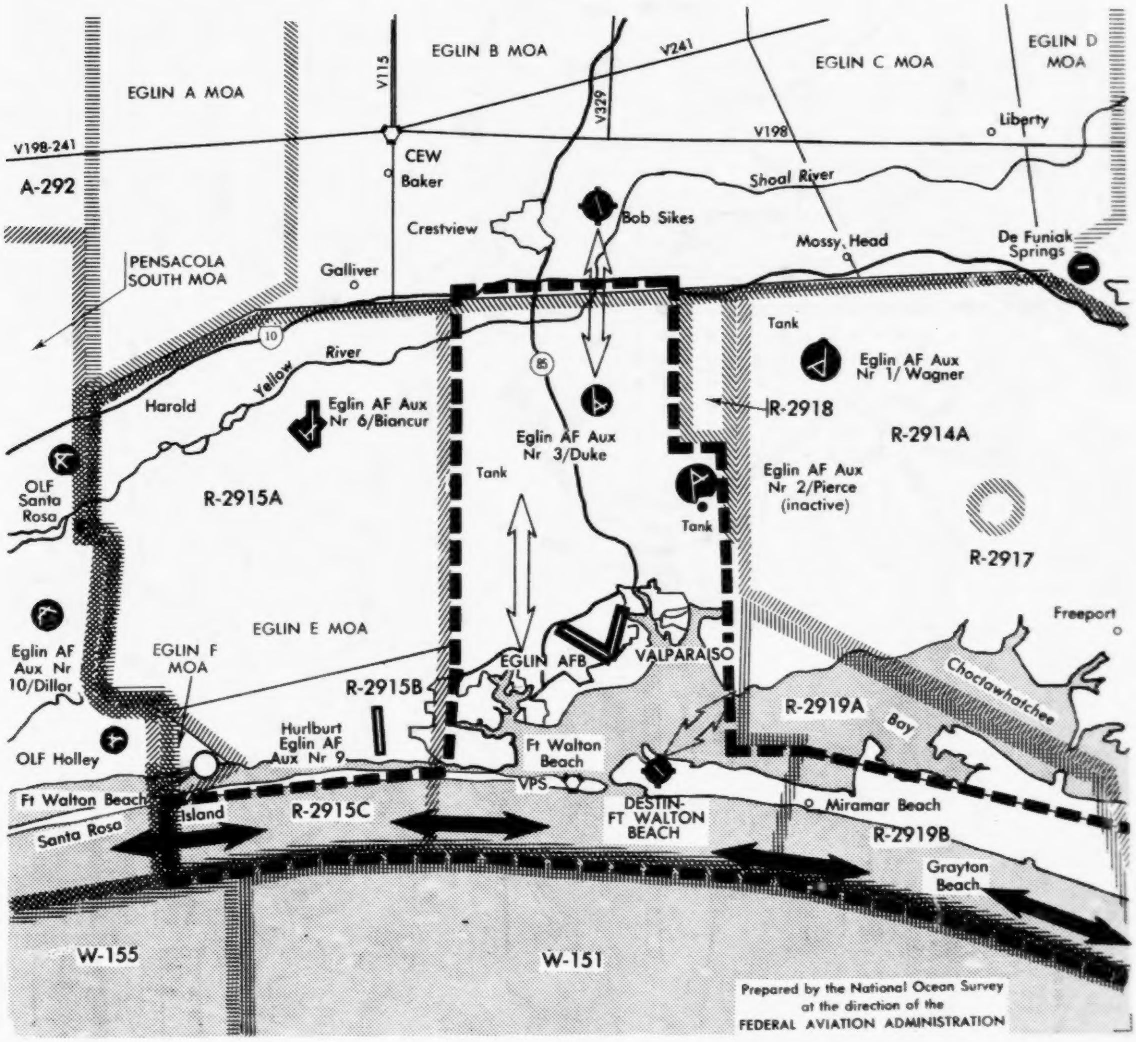
VALPARAISO, FLORIDA
SPECIAL AIR TRAFFIC RULES
(VFR OR IFR CONDITIONS)

A SPECIAL RULE IN EFFECT REQUIRES PILOTS TO OBTAIN AN ATC CLEARANCE WHEN OPERATING IN AND OUT OF THE EGLIN/VALPARAISO, FLORIDA AREA.

▬ ▬ ▬ ▬ ▬ HI-DENSITY JET TRAFFIC 3000' AND BELOW

⇔	CLEARANCE REQUIRED PRIOR TO ENTERING NORTH/SOUTH CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED N/S ROUTINGS – 3500' OR ABOVE	⬌	ADVISORIES REQUIRED PRIOR TO OPERATING WITHIN EAST/WEST CORRIDOR CONTACT EGLIN ON 119.3 RECOMMENDED E/W ROUTINGS – BELOW 8500'

(HEAVY DENSE JET TRAFFIC 3000' AND BELOW)


EGLIN A MOA
EGLIN B MOA
EGLIN C MOA
EGLIN D MOA
V115
V241
V329
V198
V198-241
A-292
CEW
Baker
Crestview
Bob Sikes
Liberty
Shoal River
Mossy Head
De Funiak Springs
PENSACOLA SOUTH MOA
Galliver
10
River
Yellow
Harold
Eglin AF Aux Nr 6/Biancur
85
Eglin AF Aux Nr 3/Duke
Tank
R-2918
Eglin AF Aux Nr 1/ Wagner
R-2914A
Tank
OLF Santa Rosa
R-2915A
Eglin AF Aux Nr 2/Pierce (inactive)
Tank
R-2917
Eglin AF Aux Nr 10/Dillor
EGLIN E MOA
EGLIN F MOA
Freeport
EGLIN AFB
VALPARAISO
Choctawhatchee
Bay
R-2915B
R-2919A
Hurlburt Eglin AF Aux Nr 9
OLF Holley
Ft Walton Beach
VPS
Ft Walton Beach
Santa Rosa
Island
R-2915C
DESTIN-FT WALTON BEACH
Miramar Beach
R-2919B
Grayton Beach
W-155
W-151

Prepared by the National Ocean Survey
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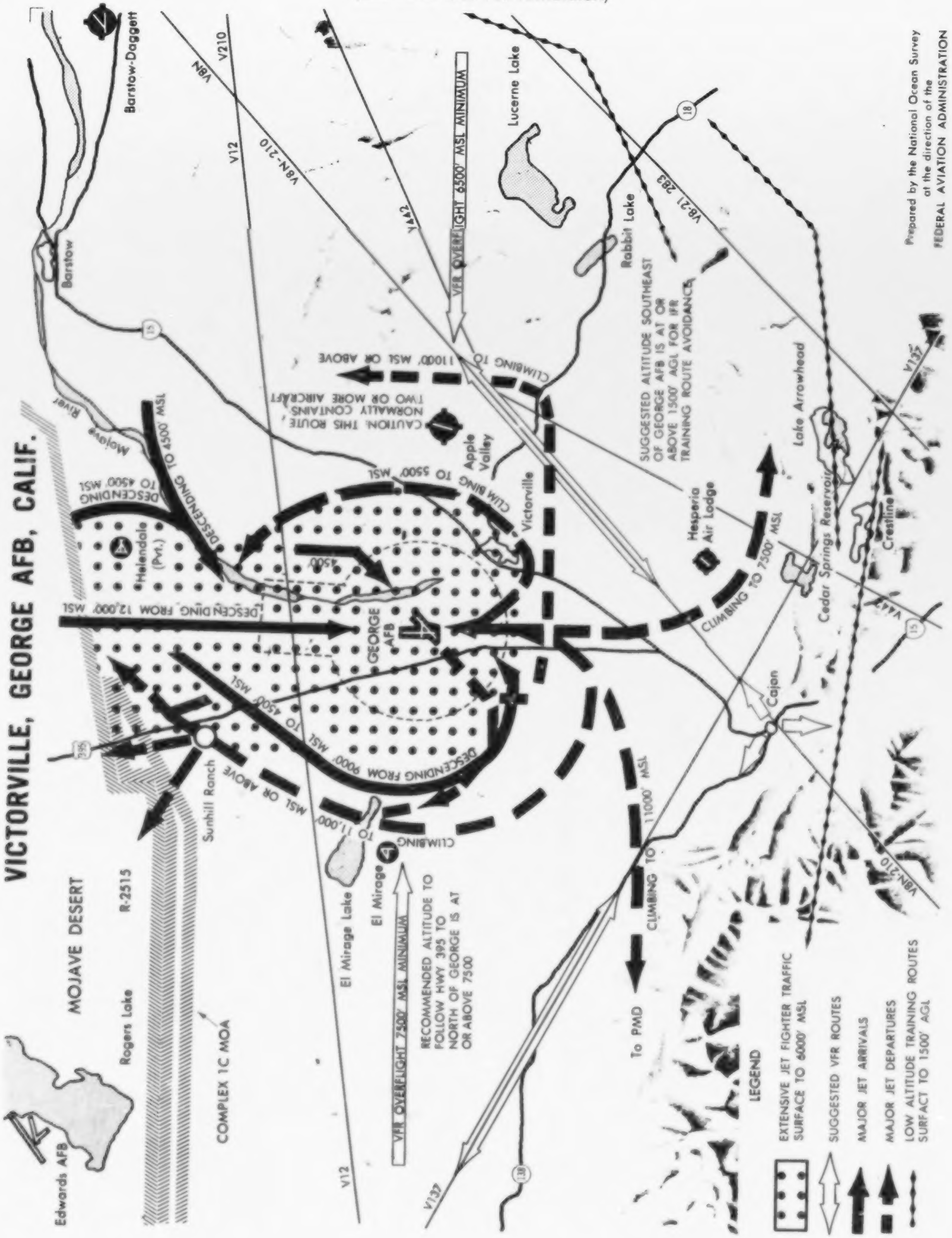
10 JUL 1980

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)


Edwards AFB
Rogers Lake
MOJAVE DESERT
R-2515
COMPLEX 1C MOA
Sunhill Ranch
395
El Mirage Lake
El Mirage
V12
V137
138
To PMD
CLIMBING TO 11,000' MSL OR ABOVE
DESCENDING FROM 9000' MSL TO 4500' MSL
DESCENDING FROM 12,000' MSL
Helendale (Pvt.)
DESCENDING TO 4500' MSL
Mojave River
GEORGE AFB
4500'
CLIMBING TO 5500' MSL
Apple Valley
Victorville
CAUTION: THIS ROUTE, NORMALLY CONTAINS TWO OR MORE AIRCRAFT
CLIMBING TO 11000' MSL OR ABOVE
CLIMBING TO 11000' MSL
CLIMBING TO 7500' MSL
Hesperia Air Lodge
Cajon
15
Cedar Springs Reservoir
Crestline
Lake Arrowhead
V442
V137
VBN-210
Barstow
Barstow-Daggett
V12
VBN-210
VBN
V210
V442
VFR OVERFLIGHT 6500' MSL MINIMUM
Lucerne Lake
Rabbit Lake
18
VB-21 283
SUGGESTED ALTITUDE SOUTHEAST OF GEORGE AFB IS AT OR ABOVE 1500' AGL FOR IFR TRAINING ROUTE AVOIDANCE
VFR OVERFLIGHT 7500' MSL MINIMUM
RECOMMENDED ALTITUDE TO FOLLOW HWY 395 TO NORTH OF GEORGE IS AT OR ABOVE 7500
LEGEND
EXTENSIVE JET FIGHTER TRAFFIC SURFACE TO 6000' MSL
SUGGESTED VFR ROUTES
MAJOR JET ARRIVALS
MAJOR JET DEPARTURES
LOW ALTITUDE TRAINING ROUTES SURFACT TO 1500' AGL

VICTORVILLE, GEORGE AFB, CALIF.

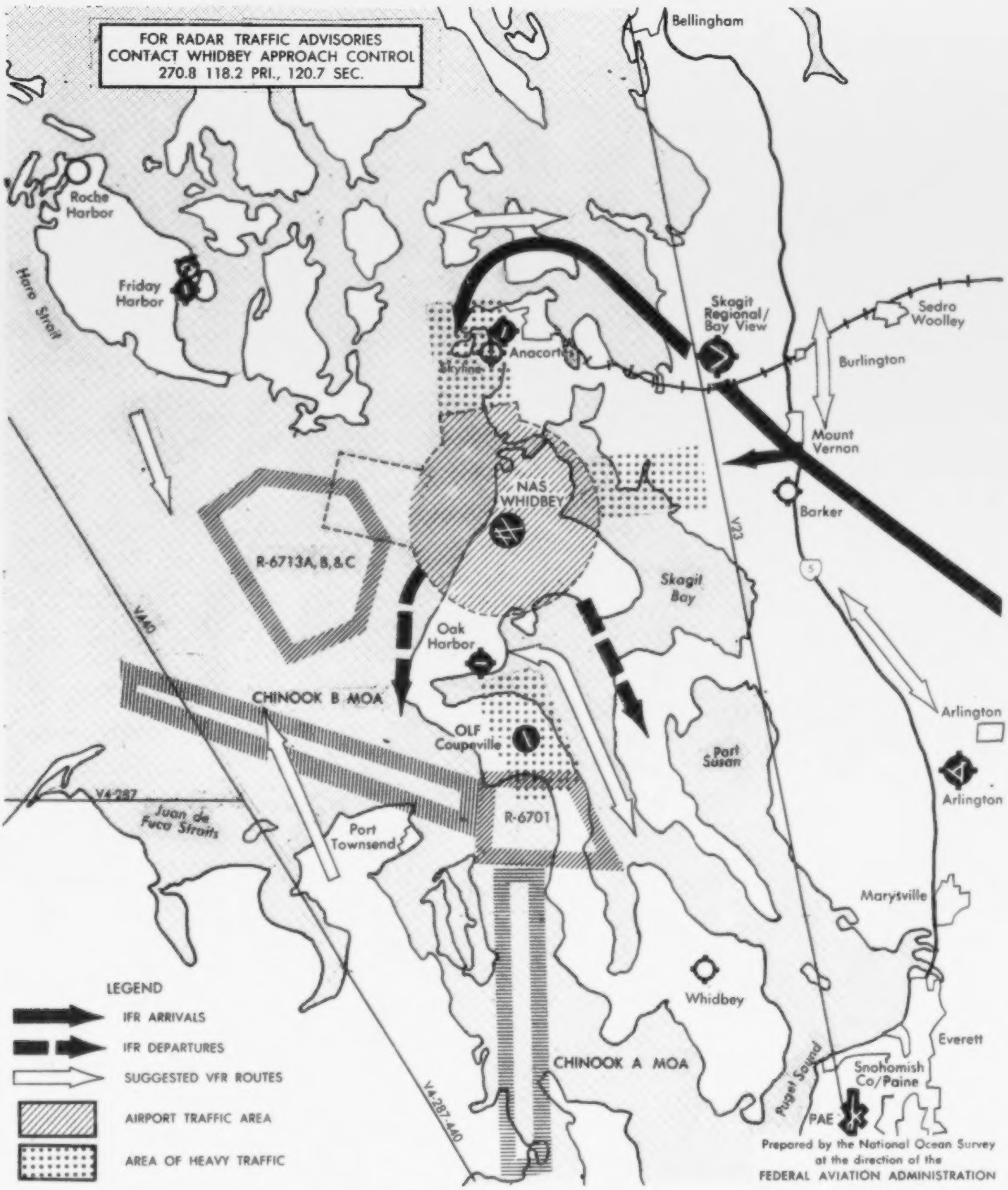
Prepared by the National Ocean Survey at the direction of the FEDERAL AVIATION ADMINISTRATION

29 NOV 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WHIDBEY ISLAND, NAS WASHINGTON

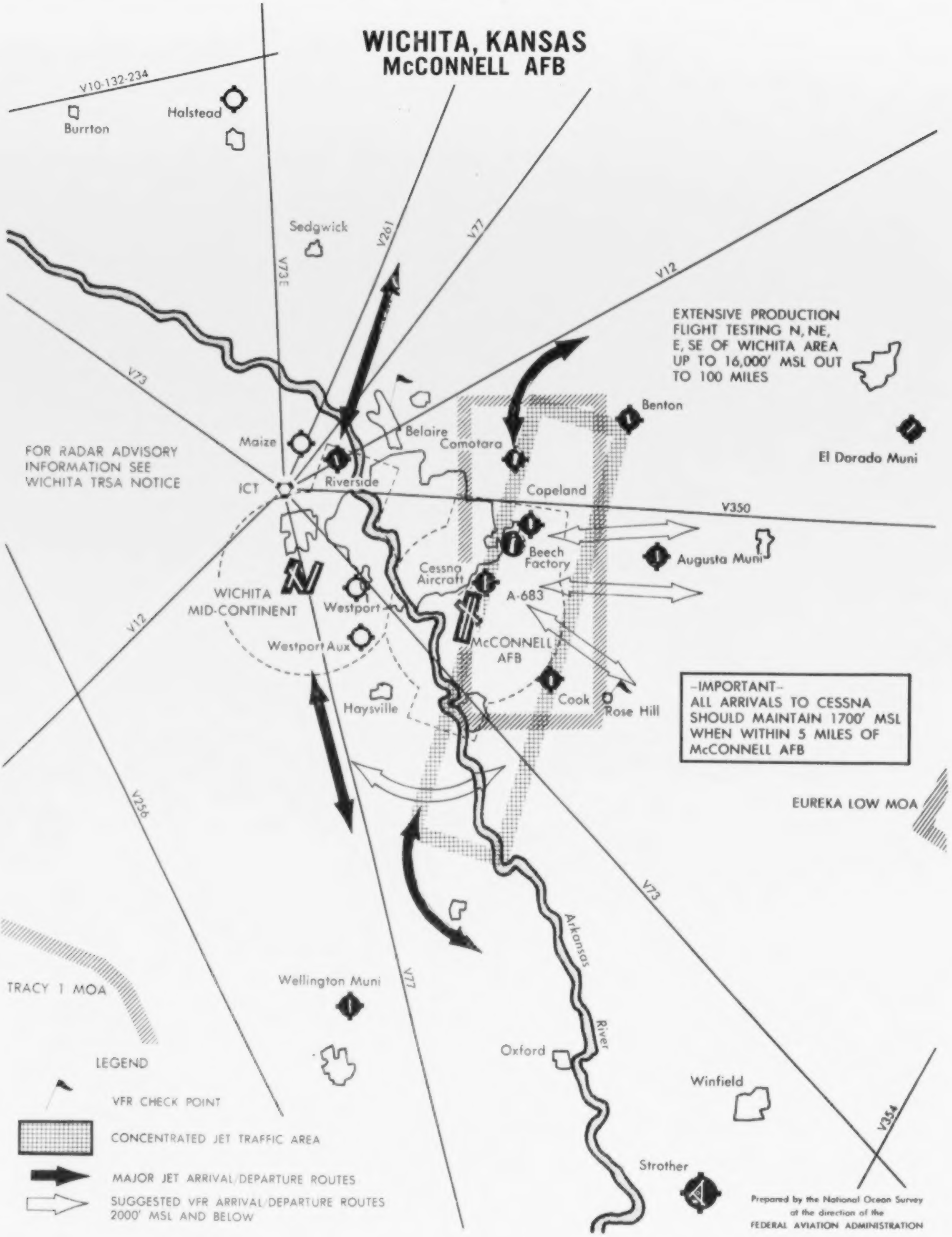
THIS CHART DEPICTS THE IFR ARRIVAL/DEPARTURE CORRIDORS SERVING NAS WHIDBEY FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR WITHIN THE AREA. PILOTS OPERATING WITHIN THIS AREA, ARE ENCOURAGED TO CONTACT WHIDBEY APPROACH CONTROL FOR TRAFFIC ADVISORIES.


FOR RADAR TRAFFIC ADVISORIES
CONTACT WHIDBEY APPROACH CONTROL
270.8 118.2 PRI., 120.7 SEC.
Bellingham
Roche Harbor
Friday Harbor
Haro Strait
Skagit Regional/ Bay View
Sedro Woolley
Burlington
Anacortes
Skyline
Mount Vernon
NAS WHIDBEY
Barker
V23
5
R-6713A, B, & C
Skagit Bay
V440
Oak Harbor
CHINOOK B MOA
OLF Coupeville
Port Susan
Arlington
Arlington
V4-287
Juan de Fuca Straits
Port Townsend
R-6701
Marysville
Whidbey
Everett
Puget Sound
Snohomish Co/Paine
PAE
CHINOOK A MOA
V4-287-440
LEGEND
IFR ARRIVALS
IFR DEPARTURES
SUGGESTED VFR ROUTES
AIRPORT TRAFFIC AREA
AREA OF HEAVY TRAFFIC

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS
McCONNELL AFB


V10-132-234
Burrton
Halstead
Sedgwick
V73E
V261
V77
V12
V73
Maize
ICT
Riverside
Belaire
Comotara
Benton
El Dorado Muni
Copeland
V350
Beech Factory
Augusta Muni
Cessna Aircraft
A-683
WICHITA MID-CONTINENT
Westport
Westport Aux
McCONNELL AFB
Cook
Rose Hill
Haysville
V12
V256
EUREKA LOW MOA
V73
Arkansas River
TRACY 1 MOA
Wellington Muni
V77
Oxford
Winfield
V354
Strother
LEGEND
VFR CHECK POINT
CONCENTRATED JET TRAFFIC AREA
MAJOR JET ARRIVAL/DEPARTURE ROUTES
SUGGESTED VFR ARRIVAL/DEPARTURE ROUTES 2000' MSL AND BELOW

FOR RADAR ADVISORY INFORMATION SEE WICHITA TRSA NOTICE

EXTENSIVE PRODUCTION FLIGHT TESTING N, NE, E, SE OF WICHITA AREA UP TO 16,000' MSL OUT TO 100 MILES

-IMPORTANT-
ALL ARRIVALS TO CESSNA SHOULD MAINTAIN 1700' MSL WHEN WITHIN 5 MILES OF McCONNELL AFB

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at the direction of the
FEDERAL AVIATION ADMINISTRATION

10 JUL 1980

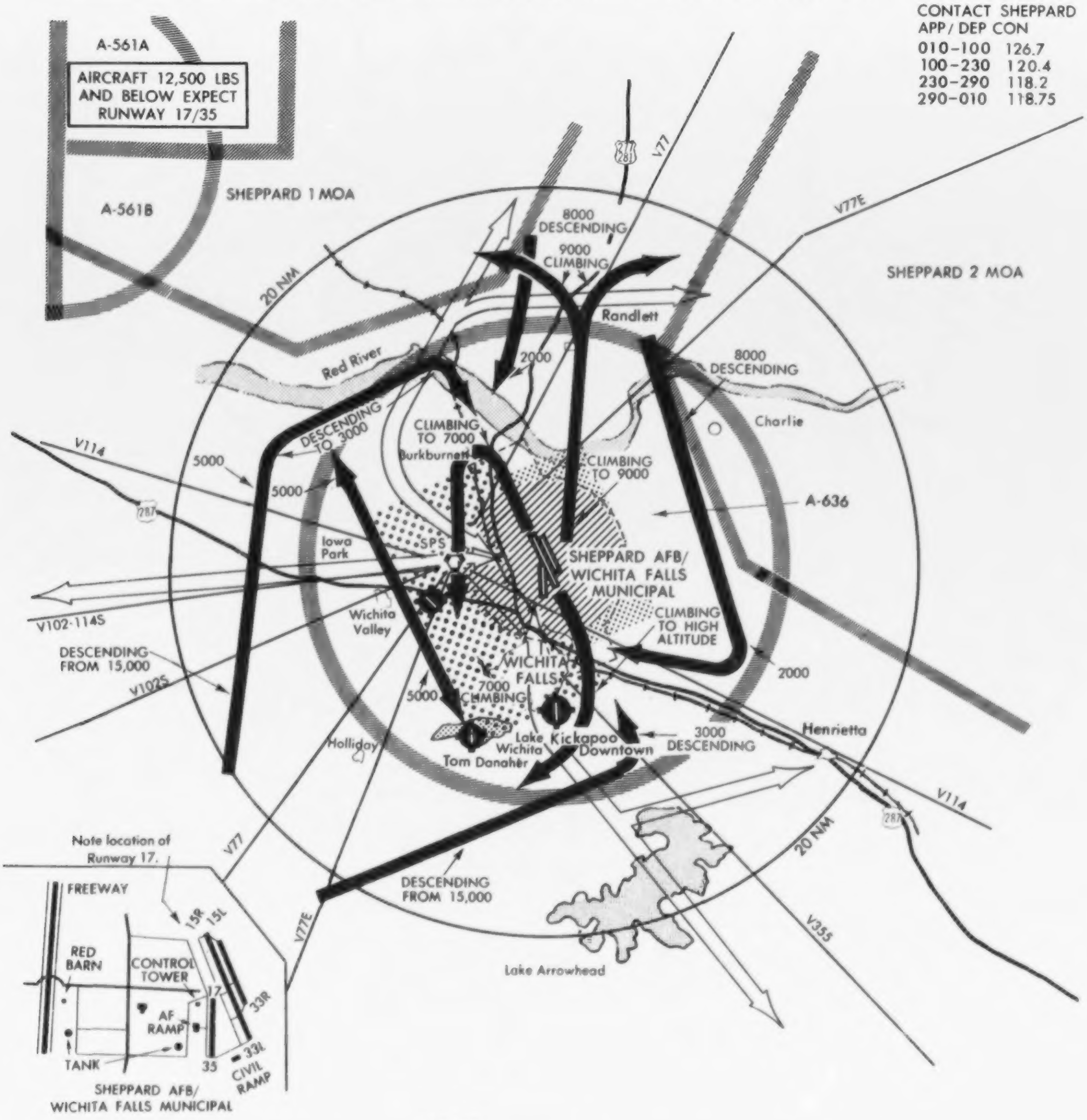
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WICHITA FALLS, TEXAS

THERE IS A HIGH VOLUME OF STUDENT JET OPERATIONS IN THE TERMINAL AREA. THE DARK ARROWS INDICATE JET IFR ARRIVAL AND DEPARTURE ROUTES THAT ARE MOST COMMONLY USED. RECOMMENDED VFR ARRIVAL AND DEPARTURE ROUTINGS ARE SHOWN BY THE LIGHT ARROWS. RECOMMEND VFR TRAFFIC STAY AT OR BELOW 2300 MSL IN VICINITY OF SHADED AREAS.

CONTACT SHEPPARD
APP/ DEP CON

010-100	126.7
100-230	120.4
230-290	118.2
290-010	118.75


A-561A
AIRCRAFT 12,500 LBS AND BELOW EXPECT RUNWAY 17/35
A-561B
SHEPPARD 1 MOA
SHEPPARD 2 MOA
277
281
V77
V77E
8000 DESCENDING
9000 CLIMBING
20 NM
Randlett
2000
Red River
8000 DESCENDING
Charlie
DESCENDING TO 3000
CLIMBING TO 7000
Burkburnett
CLIMBING TO 9000
V114
5000
5000
287
A-636
Iowa Park
SPS
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL
V102-114S
Wichita Valley
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 15,000
V102S
WICHITA FALLS
7000 CLIMBING
5000
2000
Holliday
Lake Wichita
Tom Danaher
Kickapoo
Downtown
3000 DESCENDING
Henrietta
V114
287
20 NM
DESCENDING FROM 15,000
V355
Lake Arrowhead
Note location of Runway 17.
FREEWAY
RED BARN
CONTROL TOWER
15R
15L
17
33R
AF RAMP
TANK
35
33L
CIVIL RAMP
SHEPPARD AFB/ WICHITA FALLS MUNICIPAL

LEGEND

➡	IFR ARRIVAL/DEPARTURE ROUTES	░	T-37 TRAFFIC SURFACE TO 3000
⇨	VFR ARRIVAL/DEPARTURE ROUTES	⁘	T-38 TRAFFIC AT 2800
▨	AIRPORT TRAFFIC AREA		

ALL ALTITUDES ARE MSL
UNLESS OTHERWISE STATED

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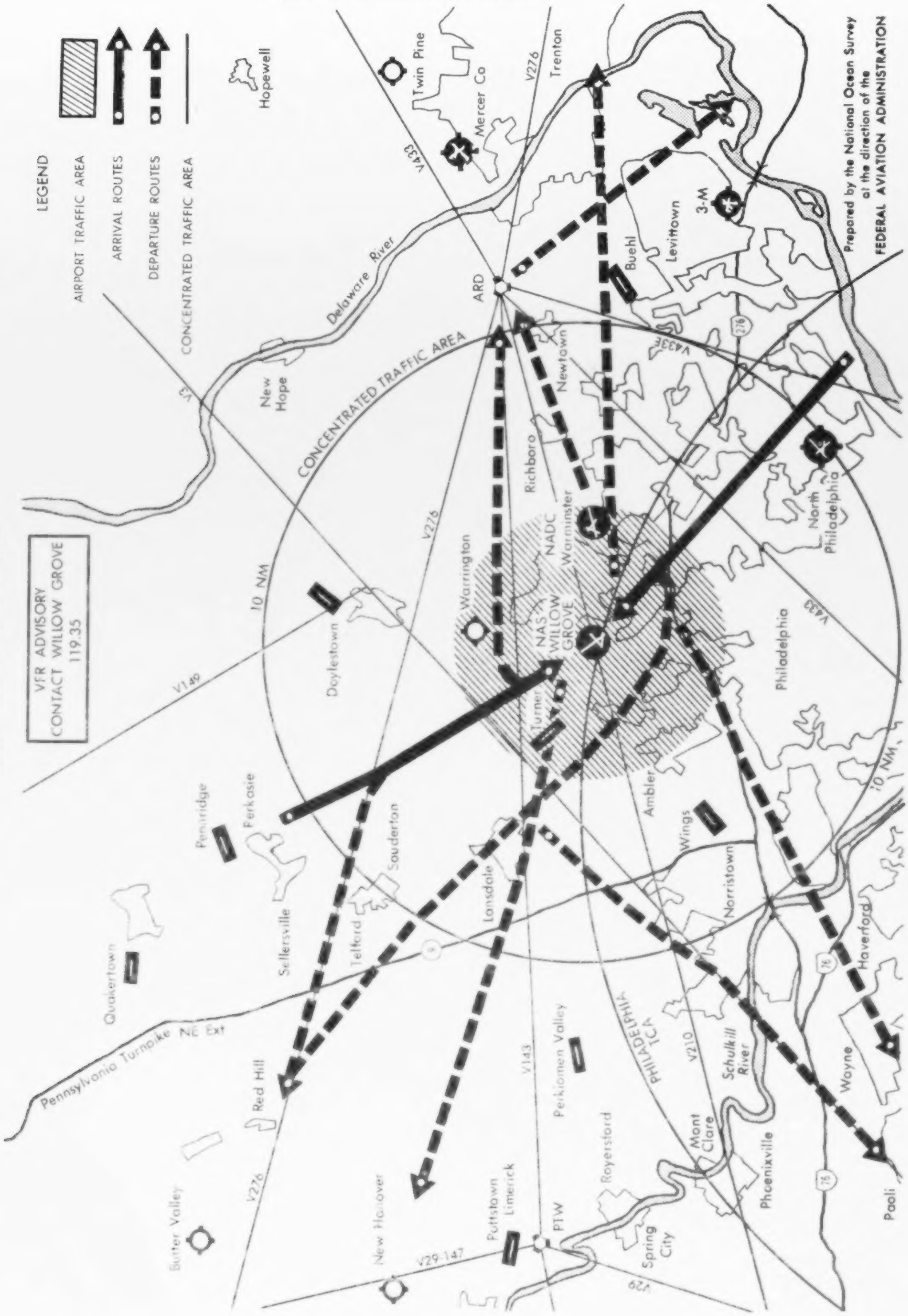
1 MAR 1979

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WILLOW GROVE, PENNSYLVANIA
NAS WILLOW GROVE


LEGEND
AIRPORT TRAFFIC AREA
ARRIVAL ROUTES
DEPARTURE ROUTES
CONCENTRATED TRAFFIC AREA
VFR ADVISORY
CONTACT WILLOW GROVE
119.35
CONCENTRATED TRAFFIC AREA
10 NM
10 NM
NAS WILLOW GROVE
NADC Warminster
Warrington
Doylestown
Turner
Richboro
Newtown
New Hope
ARD
Delaware River
Hopewell
Twin Pine
Mercer Co
Trenton
Buehl
Levittown
3-M
North Philadelphia
Philadelphia
Ambler
Wings
Norristown
Lansdale
Souderton
Telford
Sellersville
Perkasie
Pennridge
Quakertown
Pennsylvania Turnpike NE Ext
Red Hill
Butter Valley
New Hanover
Pottstown Limerick
PTW
Royersford
Spring City
Perkiomen Valley
Mont Clare
Phoenixville
Schuylkill River
PHILADELPHIA TCA
Wayne
Haverford
Paoli
V3
V433
V433E
V276
V149
V143
V210
V29
V29-147
276
76

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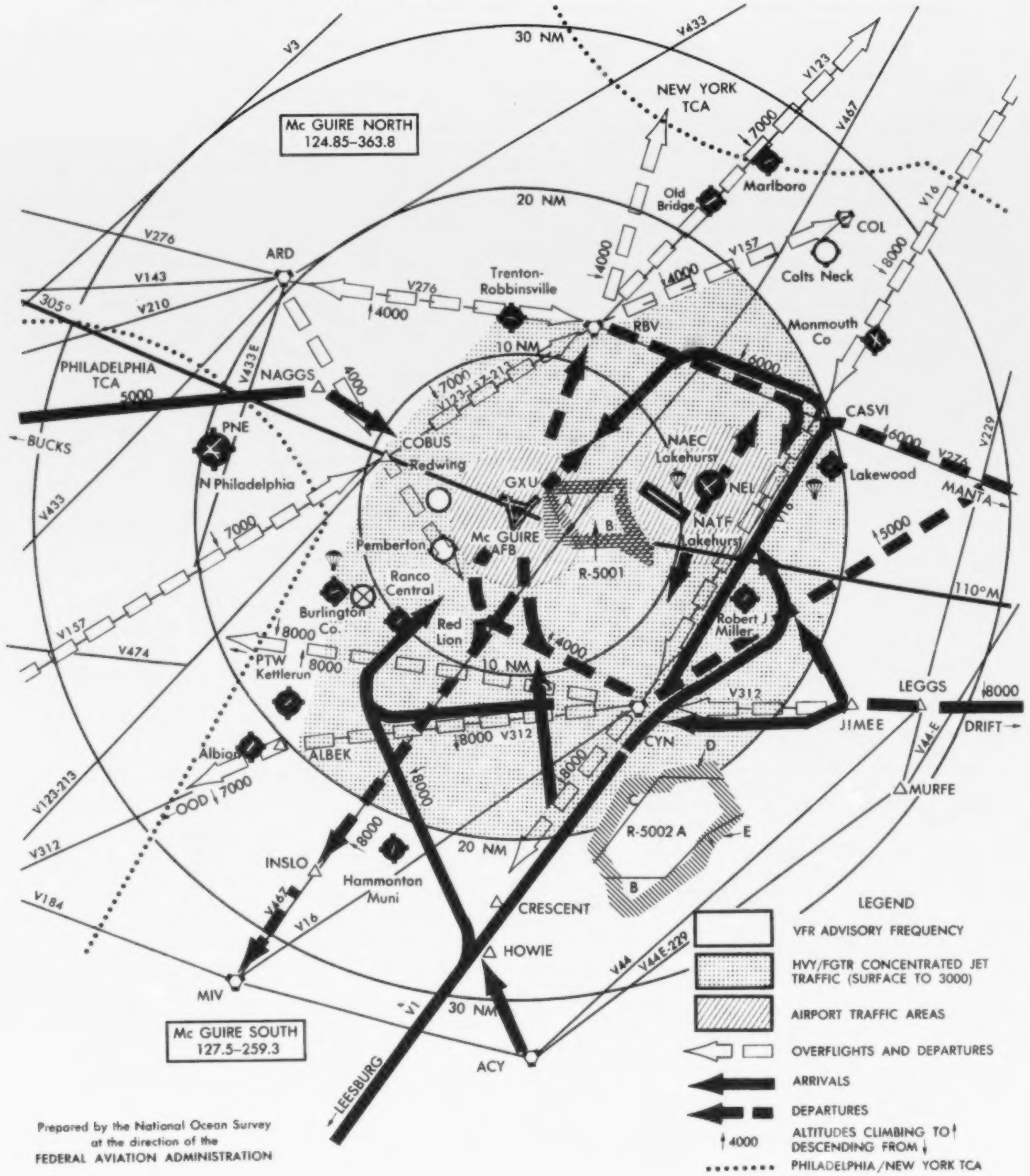
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WRIGHTSTOWN, Mc GUIRE AFB, NJ

THIS CHART SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE Mc GUIRE RADAR APPROACH CONTROL AREA. PILOTS OPERATING HEREIN ARE ENCOURAGED TO CONTACT Mc GUIRE APPROACH (APPROPRIATE SECTOR) FOR TRAFFIC ADVISORIES.


Mc GUIRE NORTH
124.85–363.8
Mc GUIRE SOUTH
127.5–259.3
30 NM
20 NM
10 NM
V3
V433
V123
V467
V16
V276
V143
V210
V157
V229
V433E
V474
V312
V123-213
V123-157-213
V184
V1
V44
V44E-229
V44-E
305°
110°M
NEW YORK
TCA
PHILADELPHIA
TCA
5000
4000
7000
8000
6000
ARD
NAGGS
BUCKS
PNE
N Philadelphia
COBUS
Redwing
GXU
Mc GUIRE
AFB
Pemberton
Ranco
Central
Burlington
Co.
Red
Lion
PTW
Kettlerun
Albion
ALBEK
OOD
INSLO
Hammonton
Muni
MIV
LEESBURG
CRESCENT
HOWIE
ACY
Trenton-
Robbinsville
RBV
Old
Bridge
Marlboro
COL
Colts Neck
Monmouth
Co
CASVI
Lakewood
MANTA
NAEC
Lakehurst
NEL
NATF
Lakehurst
A
B
R-5001
Robert J
Miller
CYN
JIMEE
LEGGS
DRIFT
MURFE
D
C
E
R-5002 A
LEGEND
VFR ADVISORY FREQUENCY
HVY/FGTR CONCENTRATED JET TRAFFIC (SURFACE TO 3000)
AIRPORT TRAFFIC AREAS
OVERFLIGHTS AND DEPARTURES
ARRIVALS
DEPARTURES
4000
ALTITUDES CLIMBING TO ↑
DESCENDING FROM ↓
PHILADELPHIA/NEW YORK TCA

Prepared by the National Ocean Survey
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FEDERAL AVIATION ADMINISTRATION

TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

WASHINGTON NATIONAL AIRPORT NOISE ABATEMENT PROCEDURES

DEPARTURES

JET AIRCRAFT – From take-off climb to 1500'. At 1500' reduce power to a target setting computed for hot day conditions at maximum gross take-off weight to give approximately 500' FPM climb. (In lieu of 1500' as the point of power reduction, the 2 mile DME fix* when departing northwest or northeast or the 3 mile DME fix* when departing south may be used). Maintain reduced power until past a 10 mile DME arc*. Upon reaching the 10 mile DME arc*, gradually increase power to normal climb settings. Follow the Potomac or Anacostia River routes described below unless otherwise advised by ATC.

ATC CLEARANCE TO "CONTINUE CLIMB" IN NO WAY ELIMINATES THE REQUIREMENT TO COMPLY WITH NOISE ABATEMENT PROCEDURES, EXCEPT THAT THE SPECIFIC ATC INSTRUCTION TO "EXPEDITE CLIMB" RELEASES THE PILOT FROM FURTHER COMPLIANCE WITH NOISE ABATEMENT PROCEDURES.

NORTHWEST – Potomac River to abeam Georgetown Reservoir thence continue over the river or via **326**° Radial* until past the 10 mile DME arc.*

NORTHEAST – Anacostia River to the 5 mile DME fix*, continuing at reduced power past a 10 mile DME arc*.

SOUTH – Potomac River to the 5 mile DME fix*, continuing at reduced power past a 10 Mile DME arc*.

(*Washington (DCA) VOR/DME)

1-AND 2-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT – Follow Potomac or Anacostia Rivers as appropriate. From take-off climb to 2000' prior to turning on course unless instructed to turn sooner by ATC.

ARRIVALS

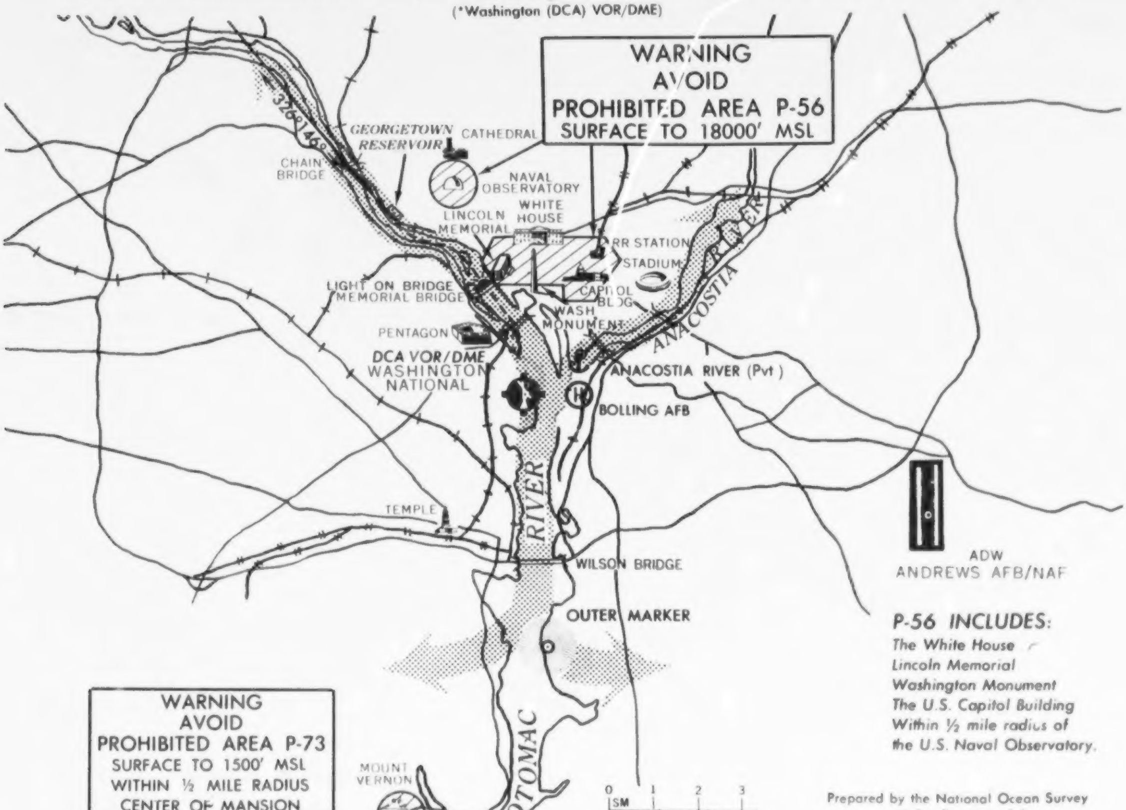
Aircraft shall be vectored so as to continue their approaches over the rivers while being spaced within the traffic flow.

Aircraft making IFR approaches from the northwest shall be cleared for a River Approach (Visual) when weather is 3500' and 3 miles or better. Radar vectors will be provided to the final approach course. When cleared for a River Approach, aircraft may visually follow the river to the airport or may proceed via the DCA VOR 326° radial (146° inbound) or via the LDA RWY 18 approach to abeam Georgetown Reservoir or the DCA 4 mile DME, then visually follow the river to the airport.

A light on Memorial Bridge is installed to assist pilots in staying over the Potomac River during approaches from the northwest.

Aircraft making IFR approaches from the south shall be cleared for a Mount Vernon Approach (Visual) when weather is 3000' and 4 miles or better. When so cleared, aircraft will proceed inbound via 187° radial* (007° inbound) to abeam Oxon NDB or 5.6 DME fix*, then will visually follow the river to the airport.

(*Washington (DCA) VOR/DME)


326°
146°
GEORGETOWN RESERVOIR
CATHEDRAL
CHAIN BRIDGE
NAVAL OBSERVATORY
WHITE HOUSE
LINCOLN MEMORIAL
RR STATION
STADIUM
LIGHT ON BRIDGE MEMORIAL BRIDGE
CAPITOL BLDG
WASH MONUMENT
ANACOSTIA RIVER
PENTAGON
DCA VOR/DME
WASHINGTON NATIONAL
ANACOSTIA RIVER (Pvt)
BOLLING AFB
TEMPLE
RIVER
WILSON BRIDGE
ADW
ANDREWS AFB/NAF
OUTER MARKER
POTOMAC
MOUNT VERNON
0 1 2 3
SM
NM
0 1 2 3

WARNING
AVOID
PROHIBITED AREA P-56
SURFACE TO 18000' MSL

WARNING
AVOID
PROHIBITED AREA P-73
SURFACE TO 1500' MSL
WITHIN ½ MILE RADIUS
CENTER OF MANSION

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol Building
Within ½ mile radius of
the U.S. Naval Observatory.

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

14 JAN 1980

TERMINAL RADAR SERVICE AREAS
(TRSA)

SERVICES PROVIDED

1. Services within a TRSA are provided on a voluntary pilot participation basis. ATC assumes that VFR aircraft entering or departing the TRSA want the service unless the pilot advises otherwise. If VFR pilots do not want the service, they should inform ground control or approach control, as appropriate, on initial contact by stating 'NEGATIVE STAGE III,' or by making a similar comment.

2. Radar vectoring and sequencing is provided on a full-time basis for all IFR and participating VFR aircraft landing at the primary airport, and at other airports if specifically advertised.

3. Separation between all participating VFR aircraft and all IFR aircraft operating within the TRSA is provided.

4. Radar advisories on all unidentified aircraft are provided on a workload permitting basis.

5. Service provided in a TRSA is also called Stage III Service and a more detailed explanation of the program is provided in the Airman's Information Manual, Part 1.

FLIGHT PROCEDURES

1. IFR Flights—Aircraft operating within the TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights

a. Airports within the TRSA:

(1) Arriving aircraft landing at airports within the TRSA are expected to contact Approach Control on specified frequencies in relation to geographical fixes depicted on the TRSA charts on the following pages. Initial contact should be made outside of the TRSA.

(2) Departing aircraft should inform ATC of their intended destination and/or route of flight and proposed cruising altitude. Departing aircraft will be advised by the tower when to contact departure control and given a frequency to be used.

b. Airports underlying the TRSA—Unless the flight will be conducted below the floor of the TRSA, arriving aircraft are expected to contact Approach Control on specified frequencies in relation to geographical fixes listed on the individual TRSA charts. Initial contact should be made outside of the TRSA.

c. Transiting aircraft—Aircraft desiring to transit the TRSA are expected to contact Departure/Approach Control on specified frequencies and in relation to geographical fixes listed on the individual TRSA charts.

ATC PROCEDURES

1. While operating within a TRSA, pilots are provided Stage III service and separation. In the event of a radar outage, separation and sequencing of VFR aircraft will be suspended as this service is depedent on radar. The pilot will be advised that the service is not available and issued wind, runway information, and the time or place to contact the tower. Traffic information will be provided on a workload-permitting basis.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio).

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

> NOTE: Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

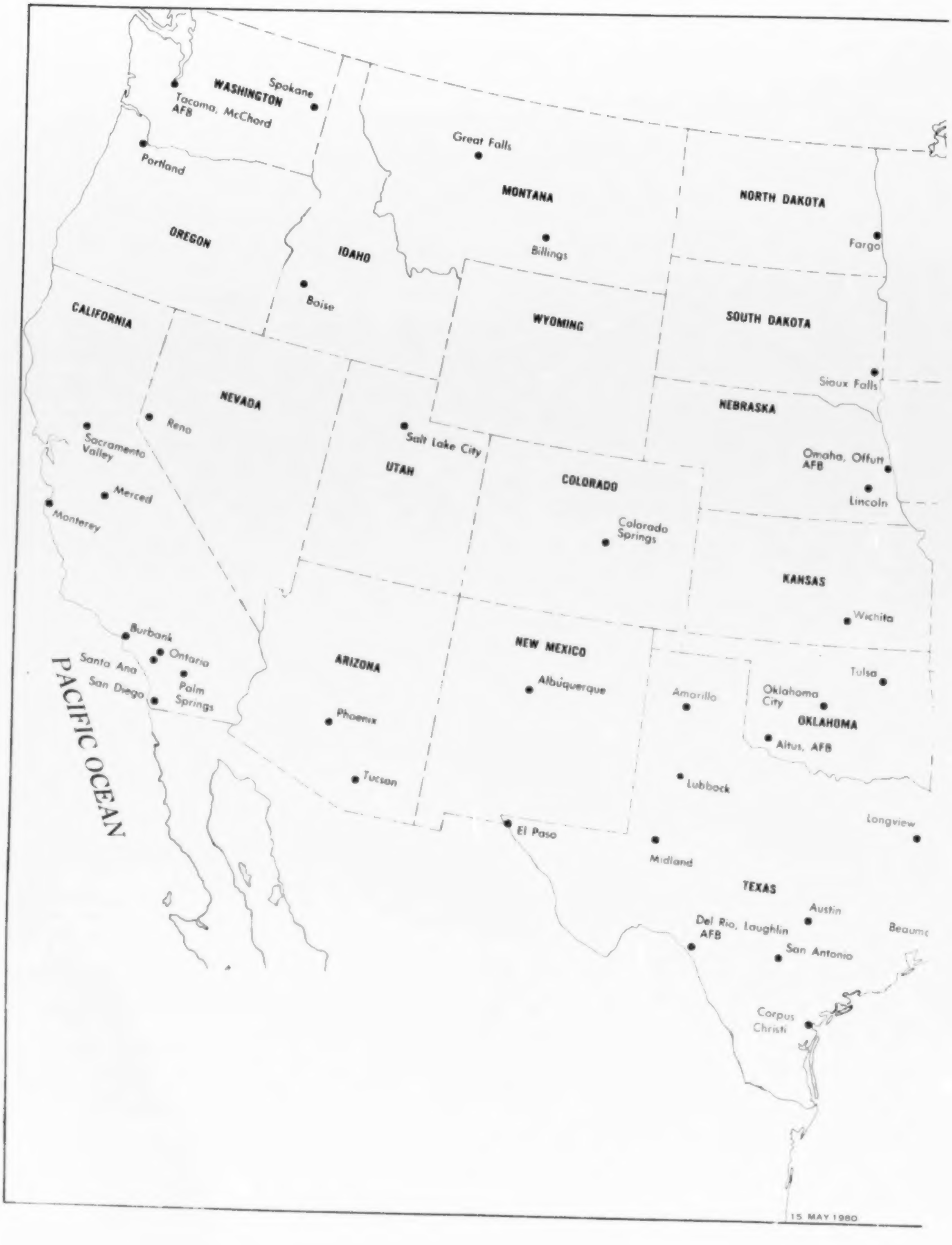
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

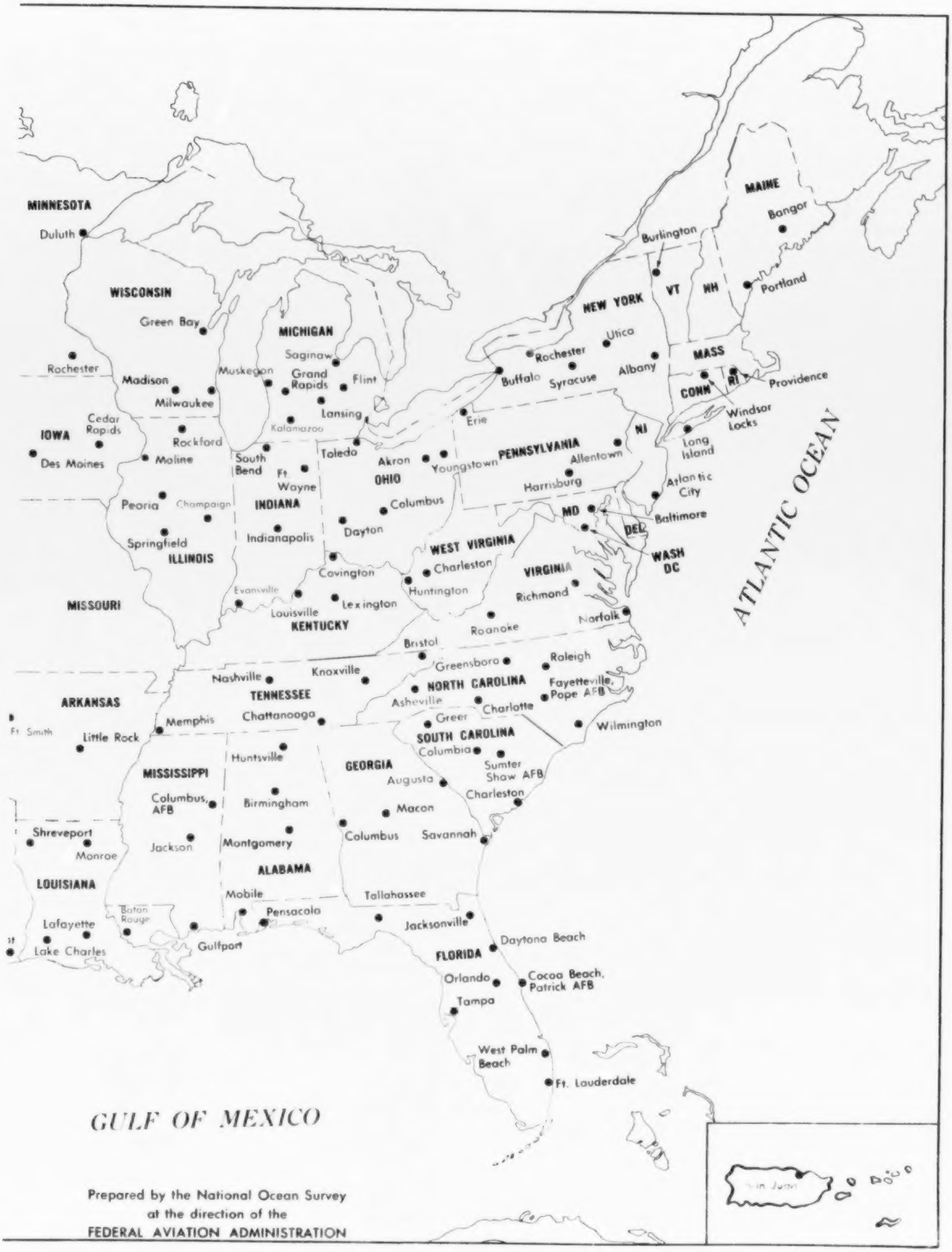
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

INDEX OF TERMINAL RADAR SERVICE AREAS


WASHINGTON
Spokane
Tacoma, McChord AFB
Portland
OREGON
IDAHO
Boise
MONTANA
Great Falls
Billings
NORTH DAKOTA
Fargo
SOUTH DAKOTA
Sioux Falls
WYOMING
CALIFORNIA
NEVADA
Reno
Sacramento Valley
Merced
Monterey
UTAH
Salt Lake City
COLORADO
Colorado Springs
NEBRASKA
Omaha, Offutt AFB
Lincoln
KANSAS
Wichita
Burbank
Ontario
Santa Ana
San Diego
Palm Springs
PACIFIC OCEAN
ARIZONA
Phoenix
Tucson
NEW MEXICO
Albuquerque
El Paso
Amarillo
Lubbock
Midland
Tulsa
Oklahoma City
OKLAHOMA
Altus, AFB
Longview
TEXAS
Austin
Del Rio, Laughlin AFB
San Antonio
Beaumc
Corpus Christi
15 MAY 1980

INDEX OF TERMINAL RADAR SERVICE AREAS


MINNESOTA
Duluth
WISCONSIN
Green Bay
Rochester
Madison
Milwaukee
MICHIGAN
Saginaw
Muskegon
Grand Rapids
Flint
Lansing
Kalamazoo
IOWA
Cedar Rapids
Des Moines
Rockford
Moline
South Bend
Ft. Wayne
Toledo
Peoria
Champaign
INDIANA
Indianapolis
Springfield
ILLINOIS
MISSOURI
Evansville
OHIO
Akron
Youngstown
Columbus
Dayton
Covington
Louisville
Lexington
KENTUCKY
WEST VIRGINIA
Charleston
Huntington
VIRGINIA
Richmond
Roanoke
Norfolk
NEW YORK
Buffalo
Rochester
Syracuse
Utica
Albany
Burlington
VT
NH
MAINE
Bangor
Portland
MASS
CONN
RI
Providence
Windsor Locks
Long Island
NJ
Erie
PENNSYLVANIA
Allentown
Harrisburg
Atlantic City
MD
Baltimore
DEL
WASH DC
ATLANTIC OCEAN
Bristol
Greensboro
Raleigh
NORTH CAROLINA
Fayetteville, Pope AFB
Asheville
Charlotte
Wilmington
Nashville
Knoxville
TENNESSEE
Chattanooga
Memphis
ARKANSAS
Ft. Smith
Little Rock
Greer
SOUTH CAROLINA
Columbia
Sumter Shaw AFB
Charleston
Huntsville
MISSISSIPPI
Columbus, AFB
Birmingham
GEORGIA
Augusta
Macon
Columbus
Savannah
Shreveport
Monroe
Jackson
Montgomery
ALABAMA
LOUISIANA
Mobile
Tallahassee
Pensacola
Jacksonville
Baton Rouge
Lafayette
Lake Charles
Gulfport
Daytona Beach
FLORIDA
Orlando
Cocoa Beach, Patrick AFB
Tampa
West Palm Beach
Ft. Lauderdale
GULF OF MEXICO
San Juan

Prepared by the National Ocean Survey
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FEDERAL AVIATION ADMINISTRATION

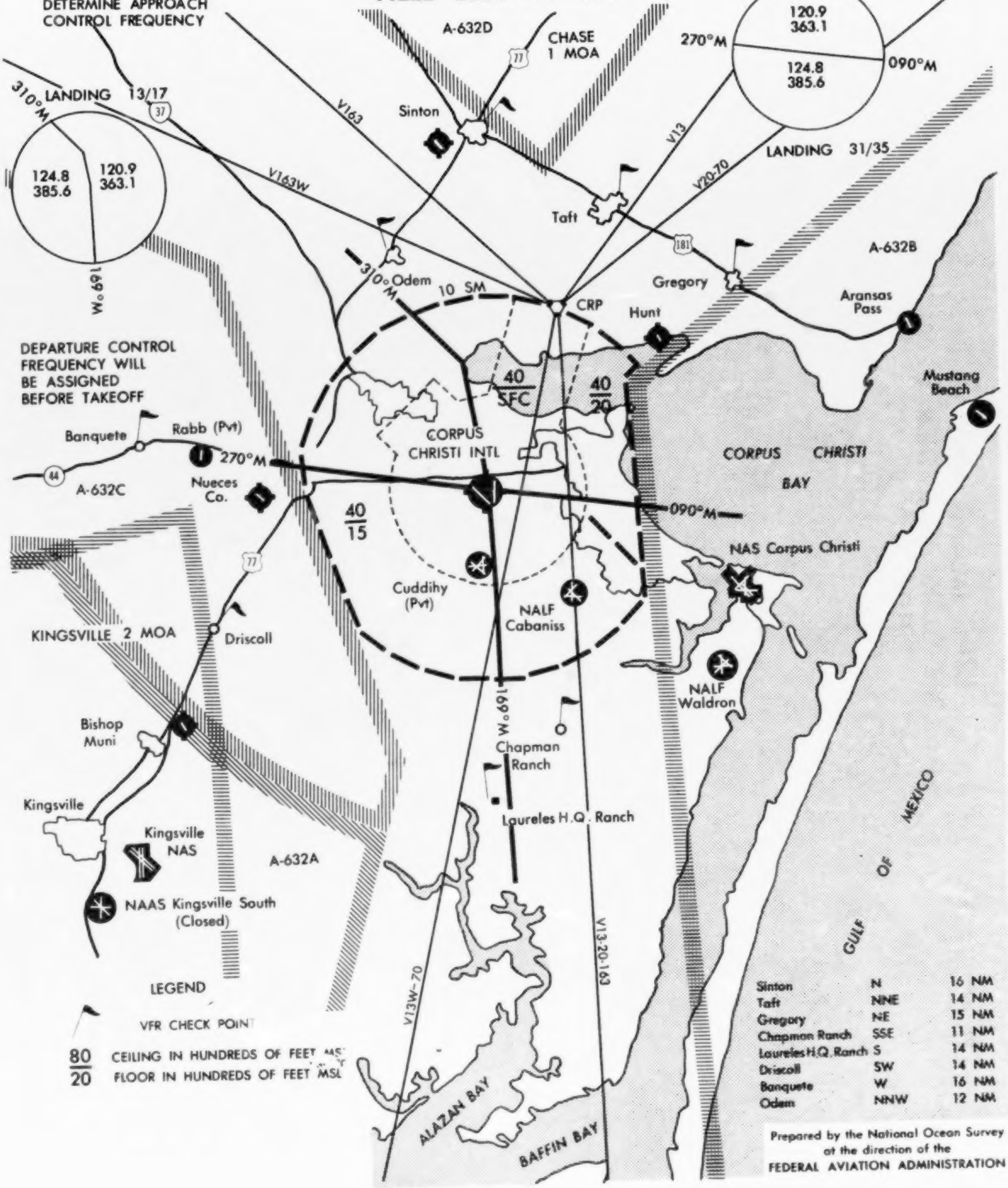
★TRSA CHARTED ON SECTIONAL
†TRSA THAT WILL APPEAR ON SECTIONALS OCTOBER 2

TABLE OF CONTENTS

	SECTIONAL	
★Akron, Oh.	DETROIT	
★Albany, N.Y.	NEW YORK	
★Albuquerque, N.M.	ALBUQUERQUE	
★Allentown, Pa.	NEW YORK	
★Altus AFB, Ok.	DALLAS-FT WORTH	
★Amarillo, Tx.	DALLAS-FT WORTH	
†Asheville, N.C.	ATLANTA	
★Atlantic City, N.J.	WASHINGTON	
★Augusta, Ga.	ATLANTA	
★Austin, Tx	SAN ANTONIO	
★Baltimore, Md.	WASHINGTON	
★Bangor, Me.	HALIFAX	
★Baton Rouge, La.	HOUSTON	
★Beaumont, Tx.	HOUSTON	
★Billings, Mt.	BILLINGS	
★Birmingham, Al.	ATLANTA	
★Boise, Id.	SALT LAKE CITY	
★Bristol, Tn.	CINCINNATI	
★Buffalo, N.Y.	DETROIT	
★Burbank, Ca.	LOS ANGELES	
★Burlington, Vt.	MONTREAL	
★Cedar Rapids, Ia.	CHICAGO	
★Champaign, Il.	CHICAGO	
★Charleston, S.C.	CHARLOTTE	
★Charleston, W.V.	CINCINNATI	
★Charlotte, N.C.	CHARLOTTE	
★Chattanooga, Tn.	ATLANTA	
Cincinnati, Ohio (See Covington, Ky.)		
†Cocoa Beach, Patrick AFB, Fl.	JACKSONVILLE	
★Colorado Springs, Co.	DENVER	
★Columbia, S.C.	CHARLOTTE	
★Columbus, Ga.	ATLANTA	
★Columbus AFB, Ms.	MEMPHIS	
★Columbus, Oh.	CINCINNATI	
Corpus Christi, Tx.		TRSA-5
★Covington, Ky.	ST. LOUIS	
★Dayton, Oh.	ST. LOUIS	
†Daytona Beach, Fl.	JACKSONVILLE	
★Del Rio, Laughlin AFB, Tx.	SAN ANTONIO	
★Des Moines, Ia.	OMAHA	
★Duluth, Mn.	GREEN BAY	
★El Paso, Tx.	EL PASO	
★Erie, Pa.	DETROIT	
★Evansville, In.	ST LOUIS	
★Fargo, N.D.	TWIN CITIES	
★Fayetteville, Pope AFB, N.C.	CHARLOTTE	
★Flint, Mi.	DETROIT	
★Ft. Lauderdale, Fl.	MIAMI	
★Ft. Smith, Ar.	MEMPHIS	
★Ft. Wayne, In.	CHICAGO	
★Grand Rapids, Mi.	CHICAGO	
★Great Falls, Mt.	GREAT FALLS	
★Green Bay, Wi.	GREEN BAY	
★Greensboro, N.C.	CHARLOTTE	
★Greer, S.C.	ATLANTA	
★Gulfport, Ms.	NEW ORLEANS	
★Harrisburg, Pa.	NEW YORK	
★Huntington, W.V.	CINCINNATI	
★Huntsville, Al.	ATLANTA	
★Indianapolis, In.	ST LOUIS	
★Jackson, Ms.	MEMPHIS	
†Jacksonville, Fl.	JACKSONVILLE	
★Kalamazoo, Mi.	CHICAGO	
★Knoxville, Tn.	ATLANTA	
★Lafayette, La.	HOUSTON	
★Lake Charles, La	HOUSTON	
★Lansing, Mi.	DETROIT	
★Lexington, Ky.	ST. LOUIS	
★Lincoln, Nb.	OMAHA	
★Little Rock, Ar.	MEMPHIS	
Long Island, N.Y.		TRSA-6
★Longview, Tx.	MEMPHIS	
★Louisville, Ky.	ST LOUIS	
★Lubbock, Tx.	DALLAS-FT WORTH	
★Macon, Ga.	ATLANTA	
★Madison, Wi.	CHICAGO	
★Memphis, Tn.	MEMPHIS	
Merced, Ca.		TRSA-7
★Midland, Tx.	SAN ANTONIO	
★Milwaukee, Wi.	CHICAGO	
★Mobile, Al.	NEW ORLEANS	
★Moline, Il.	CHICAGO	
★Monroe, La.	MEMPHIS	
★Monterey, Ca.	SAN FRANCISCO	
★Montgomery, Al.	ATLANTA	
★Muskegon, Mi.	CHICAGO	
★Nashville, Tn.	ST LOUIS	
★Norfolk, Va.	WASHINGTON	
★Oklahoma City, Ok.	DALLAS-FT WORTH	
★Omaha, Offutt AFB, Nb.	OMAHA	
★Ontario, Ca.	LOS ANGELES	
†Orlando, Fl.	JACKSONVILLE	
★Palm Springs, Ca.	LOS ANGELES	
★Pensacola, Fl.	NEW ORLEANS	
★Peoria, Il.	CHICAGO	
Phoenix, Az.		TRSA-8
★Portland, Me.	NEW YORK	
★Portland, Or.	SEATTLE	
★Providence, R.I.	NEW YORK	
★Raleigh, N.C.	CHARLOTTE	
Reno, Nv.		TRSA-9
★Richmond, Va.	WASHINGTON	
★Roanoke, Va.	CINCINNATI	
★Rochester, Mn.	CHICAGO	
★Rochester, N.Y.	DETROIT	
★Rockford, Il.	CHICAGO	
★Sacramento Valley, Ca.	SAN FRANCISCO	
★Saginaw, Mi.	DETROIT	
★Salt Lake City, Ut.	SALT LAKE CITY	
★San Antonio, Tx.	SAN ANTONIO	
★San Diego, Ca.	LOS ANGELES	
San Juan, P.R.		TRSA-10
★Santa Ana, Ca.	LOS ANGELES	
†Savannah, Ga.	JACKSONVILLE	
★Shreveport, La.	MEMPHIS	
★Sioux Falls, S.D.	OMAHA	
★South Bend, In.	CHICAGO	
★Spokane, Wa.	SEATTLE	
★Springfield, Il.	ST LOUIS	
★Sumter, Shaw AFB, S.C.	CHARLOTTE	
★Syracuse, N.Y.	NEW YORK	
★Tacoma, McChord AFB, Wa.	SEATTLE	
†Tallahassee, Fl.	JACKSONVILLE	
Tampa, Fl.		TRSA-11
★Toledo, Oh.	DETROIT	
★Tucson, Az.	PHOENIX	
★Tulsa, Ok.	KANSAS CITY	
★Utica, N.Y.	NEW YORK	
★Washington, D.C.	WASHINGTON	
★West Palm Beach, Fl.	MIAMI	
Wichita, Ks.		TRSA-12
★Wilmington, N.C.	CHARLOTTE	
★Windsor Locks, Ct.	NEW YORK	
★Youngstown, Oh.	DETROIT	

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

CORPUS CHRISTI, TEXAS
CORPUS CHRISTI INTL. AIRPORT
FIELD ELEV. 44′ MSL


LANDING 13/17
310°M
124.8
385.6
120.9
363.1
169°M
A-632D
CHASE
1 MOA
77
37
V163
V163W
Sinton
270°M
120.9
363.1
124.8
385.6
090°M
V13
V20-70
LANDING 31/35
Taft
181
A-632B
310° M
Odem
10 SM
CRP
Gregory
Hunt
Aransas
Pass
Mustang
Beach
40
SFC
40
20
CORPUS
CHRISTI INTL
CORPUS CHRISTI
BAY
Banquete
Rabb (Pvt)
270°M
44
A-632C
Nueces
Co.
40
15
090°M
NAS Corpus Christi
Cuddihy
(Pvt)
NALF
Cabaniss
NALF
Waldron
KINGSVILLE 2 MOA
Driscoll
169°M
Bishop
Muni
Chapman
Ranch
Kingsville
Laureles H.Q. Ranch
Kingsville
NAS
A-632A
NAAS Kingsville South
(Closed)
V13-20-163
V13W-70
GULF OF MEXICO
ALAZAN BAY
BAFFIN BAY

VFR AIRCRAFT VERIFY LANDING RUNWAY ON ATIS (126.8) TO DETERMINE APPROACH CONTROL FREQUENCY

DEPARTURE CONTROL FREQUENCY WILL BE ASSIGNED BEFORE TAKEOFF

LEGEND

VFR CHECK POINT

80 CEILING IN HUNDREDS OF FEET MSL
20 FLOOR IN HUNDREDS OF FEET MSL

Sinton	N	16 NM
Taft	NNE	14 NM
Gregory	NE	15 NM
Chapman Ranch	SSE	11 NM
Laureles H.Q. Ranch	S	14 NM
Driscoll	SW	14 NM
Banquete	W	16 NM
Odem	NNW	12 NM

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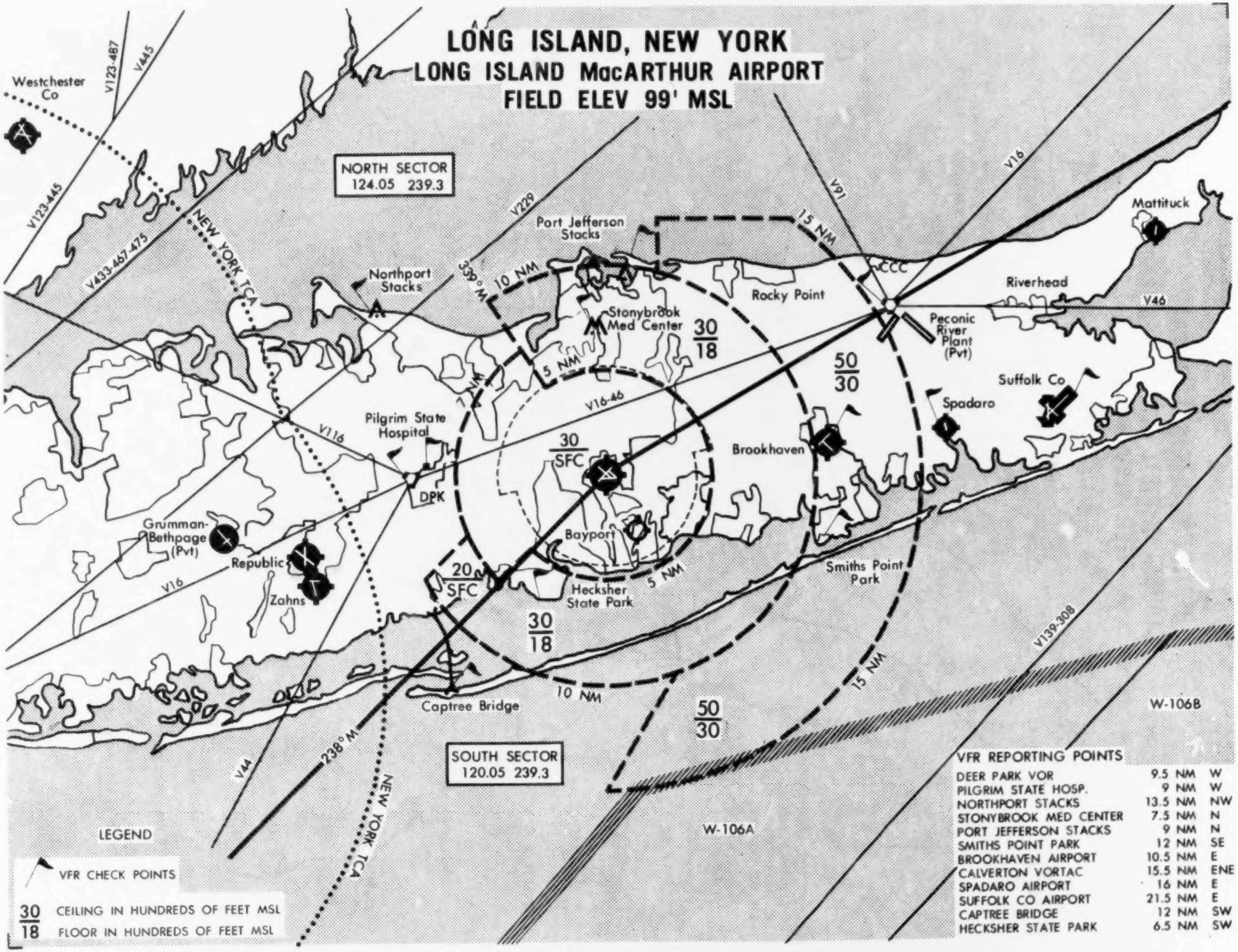
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

LONG ISLAND, NEW YORK
LONG ISLAND MacARTHUR AIRPORT
FIELD ELEV 99' MSL


Westchester Co
V123-487
V445
V123-445
V433-467-475
NEW YORK TCA
NORTH SECTOR 124.05 239.3
V229
339° M
10 NM
Port Jefferson Stacks
Northport Stacks
Stonybrook Med Center
30/18
5 NM
7 NM
V91
15 NM
CCC
Rocky Point
V16
Mattituck
Riverhead
V46
Peconic River Plant (Pvt)
50/30
Suffolk Co
Spadaro
Brookhaven
V16-46
30/SFC
Pilgrim State Hospital
V116
DPK
Grumman-Bethpage (Pvt)
Republic
Zahns
V16
20/SFC
Bayport
Heckshar State Park
5 NM
30/18
Smiths Point Park
V139-308
15 NM
10 NM
Captree Bridge
50/30
W-106B
238° M
V44
SOUTH SECTOR 120.05 239.3
W-106A
NEW YORK TCA

VFR REPORTING POINTS		
DEER PARK VOR	9.5 NM	W
PILGRIM STATE HOSP.	9 NM	W
NORTHPORT STACKS	13.5 NM	NW
STONYBROOK MED CENTER	7.5 NM	N
PORT JEFFERSON STACKS	9 NM	N
SMITHS POINT PARK	12 NM	SE
BROOKHAVEN AIRPORT	10.5 NM	E
CALVERTON VORTAC	15.5 NM	ENE
SPADARO AIRPORT	16 NM	E
SUFFOLK CO AIRPORT	21.5 NM	E
CAPTREE BRIDGE	12 NM	SW
HECKSHER STATE PARK	6.5 NM	SW

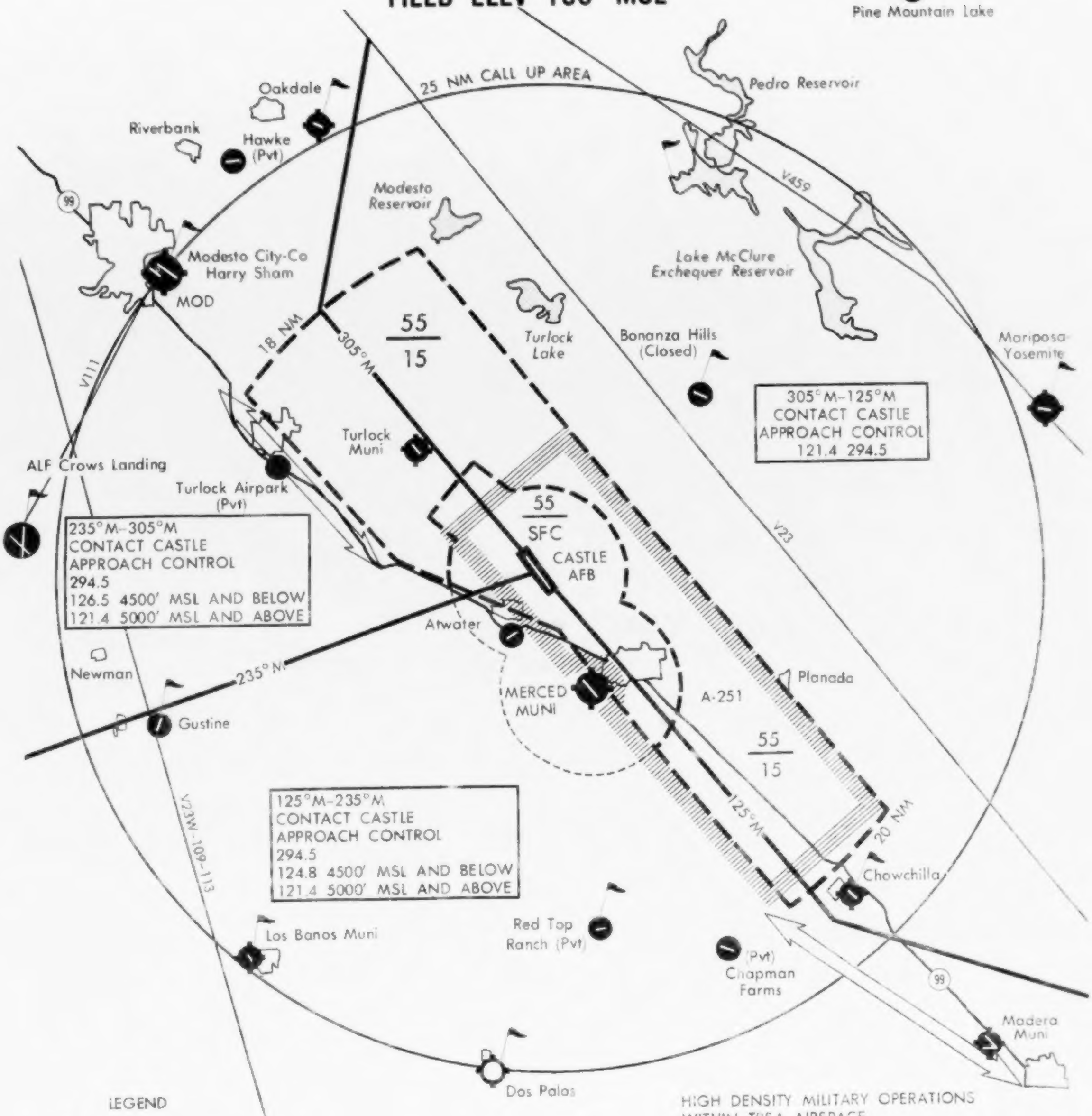
LEGEND

VFR CHECK POINTS

30 CEILING IN HUNDREDS OF FEET MSL
18 FLOOR IN HUNDREDS OF FEET MSL

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

MERCED, CALIFORNIA
CASTLE AFB
FIELD ELEV 188' MSL


Pine Mountain Lake
25 NM CALL UP AREA
Pedro Reservoir
Oakdale
Riverbank
Hawke (Pvt)
99
Modesto Reservoir
V459
Lake McClure Exchequer Reservoir
Modesto City-Co Harry Sham
MOD
18 NM
305°M
55
15
Turlock Lake
Bonanza Hills (Closed)
Mariposa-Yosemite
V111
305°M–125°M CONTACT CASTLE APPROACH CONTROL 121.4 294.5
Turlock Muni
ALF Crows Landing
Turlock Airpark (Pvt)
55
SFC
CASTLE AFB
V23
235°M–305°M CONTACT CASTLE APPROACH CONTROL 294.5 126.5 4500' MSL AND BELOW 121.4 5000' MSL AND ABOVE
Atwater
Newman
235°M
MERCED MUNI
A-251
Planada
Gustine
55
15
125°M–235°M CONTACT CASTLE APPROACH CONTROL 294.5 124.8 4500' MSL AND BELOW 121.4 5000' MSL AND ABOVE
125°M
20 NM
V23W-109-113
Chowchilla
Los Banos Muni
Red Top Ranch (Pvt)
(Pvt) Chapman Farms
99
Madera Muni
Dos Palos

HIGH DENSITY MILITARY OPERATIONS
WITHIN TRSA AIRSPACE
RADAR SERVICE AVAILABLE
CASTLE APPROACH CONTROL

LEGEND

VFR CHECK POINT

VFR PREFERENTIAL ROUTE

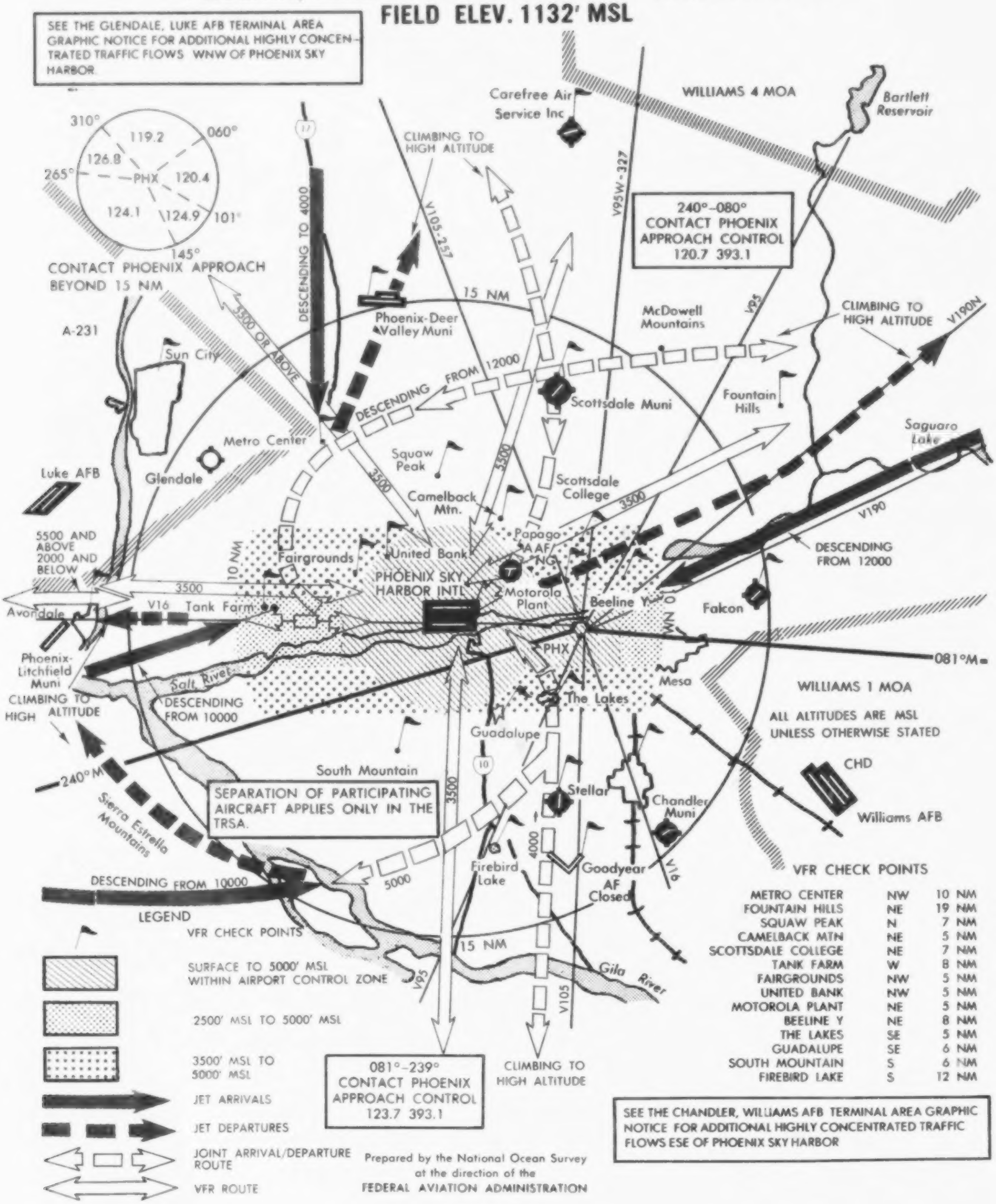
55 CEILING IN HUNDREDS OF FEET MSL
15 FLOOR IN HUNDREDS OF FEET MSL

Prepared by the National Ocean Survey
at the direction of the
FEDERAL AVIATION ADMINISTRATION

TERMINAL RADAR SERVICE AREA/
TERMINAL AREA GRAPHIC NOTICE
(NOT TO BE USED FOR NAVIGATION)

PHOENIX, ARIZONA PHOENIX SKY HARBOR INTL

FIELD ELEV. 1132′ MSL


310°
119.2
060°
126.8
265°
PHX
120.4
124.1
124.9
101°
145°
CONTACT PHOENIX APPROACH BEYOND 15 NM
A-231
Sun City
Glendale
Metro Center
Luke AFB
5500 AND ABOVE
2000 AND BELOW
Avondale
Phoenix-Litchfield Muni
CLIMBING TO HIGH ALTITUDE
DESCENDING FROM 10000
17
DESCENDING TO 4000
3500 OR ABOVE
Phoenix-Deer Valley Muni
CLIMBING TO HIGH ALTITUDE
V105-257
Carefree Air Service Inc
WILLIAMS 4 MOA
V95W-327
Bartlett Reservoir
15 NM
McDowell Mountains
V95
CLIMBING TO HIGH ALTITUDE
V190N
DESCENDING FROM 12000
Scottsdale Muni
Fountain Hills
Saguaro Lake
Squaw Peak
3500
Camelback Mtn.
3500
Scottsdale College
3500
V190
Papago AAF/NG
DESCENDING FROM 12000
Fairgrounds
United Bank
PHOENIX SKY HARBOR INTL
Motorola Plant
Beeline Y
Falcon
10 NM
10 NM
3500
V16
Tank Farm
Salt River
PHX
081°M
Mesa
WILLIAMS 1 MOA
The Lakes
Guadalupe
South Mountain
10
3500
240°M
Sierra Estrella Mountains
Stellar
Chandler Muni
CHD
Williams AFB
Firebird Lake
4000
Goodyear AF Closed
V16
5000
DESCENDING FROM 10000
15 NM
V95
V105
Gila River
CLIMBING TO HIGH ALTITUDE
LEGEND
VFR CHECK POINTS
SURFACE TO 5000′ MSL WITHIN AIRPORT CONTROL ZONE
2500′ MSL TO 5000′ MSL
3500′ MSL TO 5000′ MSL
JET ARRIVALS
JET DEPARTURES
JOINT ARRIVAL/DEPARTURE ROUTE
VFR ROUTE

SEE THE GLENDALE, LUKE AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS WNW OF PHOENIX SKY HARBOR.

240°–080°
CONTACT PHOENIX
APPROACH CONTROL
120.7 393.1

ALL ALTITUDES ARE MSL UNLESS OTHERWISE STATED

SEPARATION OF PARTICIPATING AIRCRAFT APPLIES ONLY IN THE TRSA.

081°–239°
CONTACT PHOENIX
APPROACH CONTROL
123.7 393.1

VFR CHECK POINTS

METRO CENTER	NW	10 NM
FOUNTAIN HILLS	NE	19 NM
SQUAW PEAK	N	7 NM
CAMELBACK MTN	NE	5 NM
SCOTTSDALE COLLEGE	NE	7 NM
TANK FARM	W	8 NM
FAIRGROUNDS	NW	5 NM
UNITED BANK	NW	5 NM
MOTOROLA PLANT	NE	5 NM
BEELINE Y	NE	8 NM
THE LAKES	SE	5 NM
GUADALUPE	SE	6 NM
SOUTH MOUNTAIN	S	6 NM
FIREBIRD LAKE	S	12 NM

SEE THE CHANDLER, WILLIAMS AFB TERMINAL AREA GRAPHIC NOTICE FOR ADDITIONAL HIGHLY CONCENTRATED TRAFFIC FLOWS ESE OF PHOENIX SKY HARBOR

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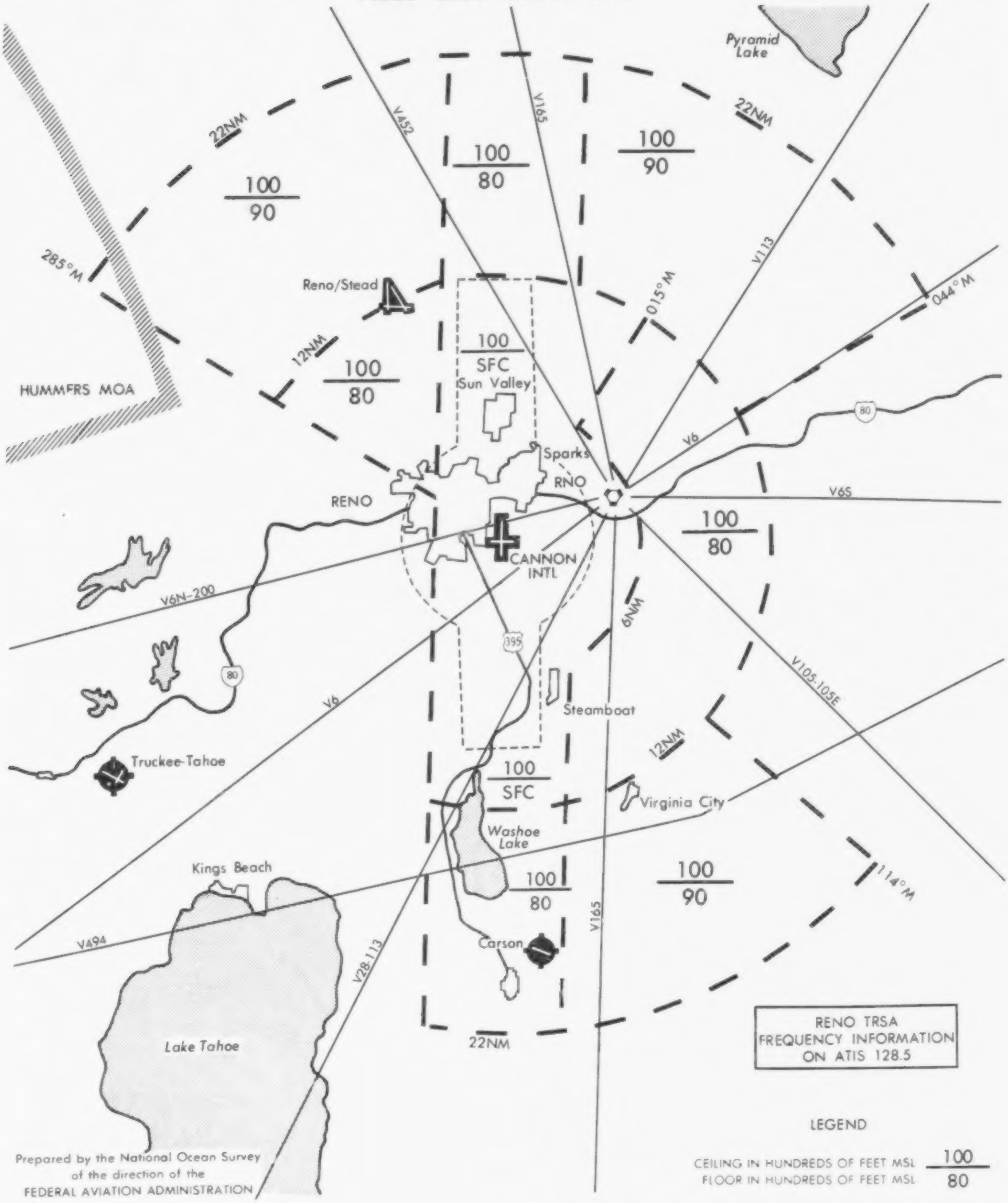
FEDERAL AVIATION ADMINISTRATION

15 MAY 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

RENO, NEVADA
CANNON INTL AIRPORT
FIELD ELEV 4412' MSL


Pyramid Lake
22NM
V452
V165
100/80
100/90
22NM
100/90
285°M
Reno/Stead
V113
015°M
044°M
12NM
100/80
100/SFC
Sun Valley
HUMMERS MOA
80
V6
Sparks
RNO
RENO
V6S
100/80
CANNON INTL
V6N-200
6NM
395
80
V6
V105-105E
Steamboat
12NM
Truckee-Tahoe
100/SFC
Virginia City
Washoe Lake
Kings Beach
100/80
100/90
114°M
V494
V28-113
Carson
V165
22NM
Lake Tahoe

RENO TRSA
FREQUENCY INFORMATION
ON ATIS 128.5

LEGEND

CEILING IN HUNDREDS OF FEET MSL 100
FLOOR IN HUNDREDS OF FEET MSL 80

Prepared by the National Ocean Survey
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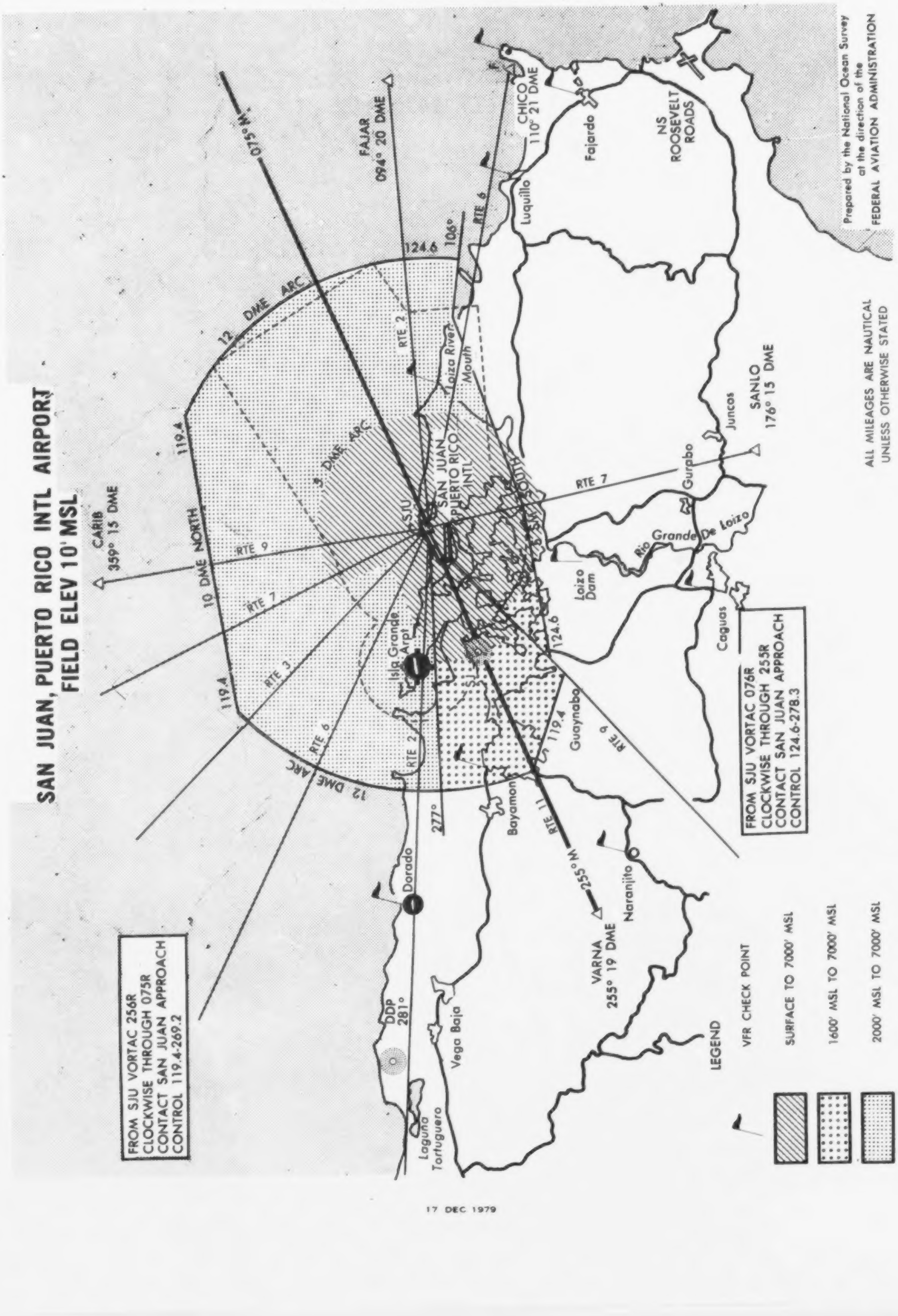
10 JUL 1980

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)



SAN JUAN, PUERTO RICO INTL AIRPORT
FIELD ELEV 10' MSL

FROM SJU VORTAC 256R
CLOCKWISE THROUGH 075R
CONTACT SAN JUAN APPROACH
CONTROL 119.4-269.2

FROM SJU VORTAC 076R
CLOCKWISE THROUGH 255R
CONTACT SAN JUAN APPROACH
CONTROL 124.6-278.3

ALL MILEAGES ARE NAUTICAL
UNLESS OTHERWISE STATED

LEGEND

- VFR CHECK POINT
- ▨ SURFACE TO 7000' MSL
- ░ 1600' MSL TO 7000' MSL
- ░ 2000' MSL TO 7000' MSL

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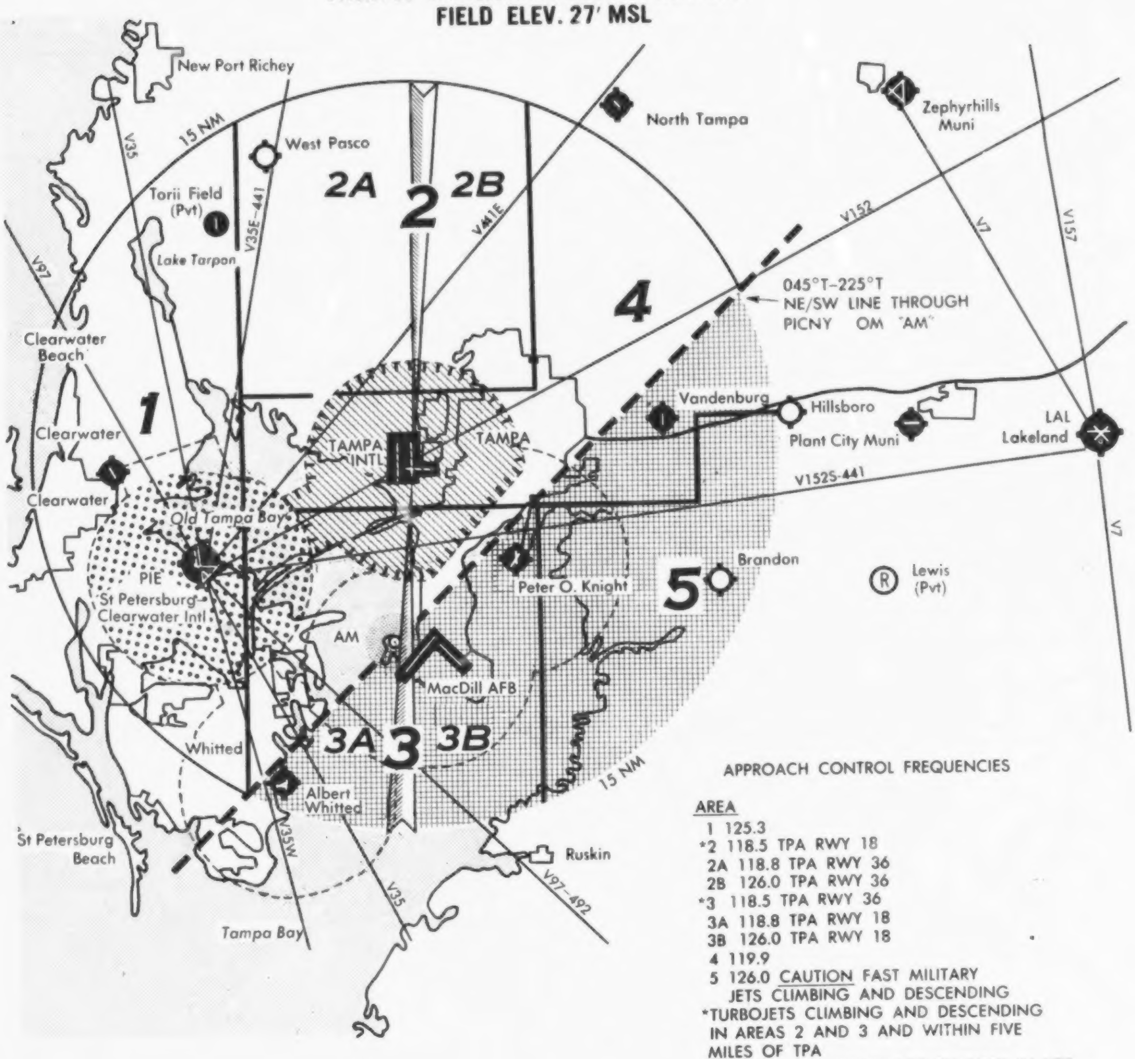
CARIB
359° 15 DME
FAJAR
094° 20 DME
CHICO
110° 21 DME
SANLO
176° 15 DME
VARNA
255° 19 DME
DDP
281°
075° M
255° M
106°
277°
12 DME ARC
10 DME NORTH
5 DME ARC
5 DME SOUTH
124.6
119.4
RTE 2
RTE 3
RTE 6
RTE 7
RTE 9
RTE 11
SJU
SAN JUAN PUERTO RICO INTL
SJ
Isla Grande Arpt
Loiza River Mouth
Luquillo
Fajardo
NS ROOSEVELT ROADS
Juncos
Gurabo
Rio Grande De Loizo
Loizo Dam
Caguas
Guaynabo
Bayamon
Naranjito
Dorado
Vega Baja
Laguna Tortuguero

TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

TAMPA, FLORIDA
TAMPA INTERNATIONAL AIRPORT
FIELD ELEV. 27′ MSL


New Port Richey
15 NM
V35
West Pasco
2A
2
2B
North Tampa
Zephyrhills Muni
Torii Field (Pvt)
V35E-441
V41E
V152
V7
V157
V97
Lake Tarpon
4
045°T–225°T NE/SW LINE THROUGH PICNY OM "AM"
Clearwater Beach
1
Vandenburg
Hillsboro
Plant City Muni
LAL Lakeland
Clearwater
TAMPA INTL
TAMPA
Clearwater
V152S-441
Old Tampa Bay
PIE
St Petersburg-Clearwater Intl
Peter O. Knight
Brandon
5
Lewis (Pvt)
AM
MacDill AFB
Whitted
3A
3
3B
15 NM
Albert Whitted
St Petersburg Beach
V35W
Ruskin
V35
V97-492
Tampa Bay

APPROACH CONTROL FREQUENCIES

AREA
1 125.3
*2 118.5 TPA RWY 18
2A 118.8 TPA RWY 36
2B 126.0 TPA RWY 36
*3 118.5 TPA RWY 36
3A 118.8 TPA RWY 18
3B 126.0 TPA RWY 18
4 119.9
5 126.0 CAUTION FAST MILITARY JETS CLIMBING AND DESCENDING
*TURBOJETS CLIMBING AND DESCENDING IN AREAS 2 AND 3 AND WITHIN FIVE MILES OF TPA
NOTE–TPA ATIS 126.45 FOR RUNWAY IN USE

CHANGE TRANSPONDER TO CODE 1200 AFTER LEAVING APPROACH CONTROL FREQUENCY

LEGEND

▨ SURFACE TO 6000′ MSL WITHIN CONTROL ZONE

▦ 2100′ MSL TO 6000′ MSL

☐ 1600′ MSL TO 6000′ MSL

⁙ 3000′ MSL TO 6000′ MSL WITHIN PIE AIRPORT TRAFFIC AREA

VFR REPORTING POINTS

RUSKIN	SSE - 16 NM
PLANT CITY	ENE - 21 NM
TAMPA DOWNS AIRPORT	NE - 17 NM
NEW PORT RICHEY	NW - 19 NM
CLEARWATER BEACH	W - 17 NM
PETERSBURG BEACH	SW - 18 NM

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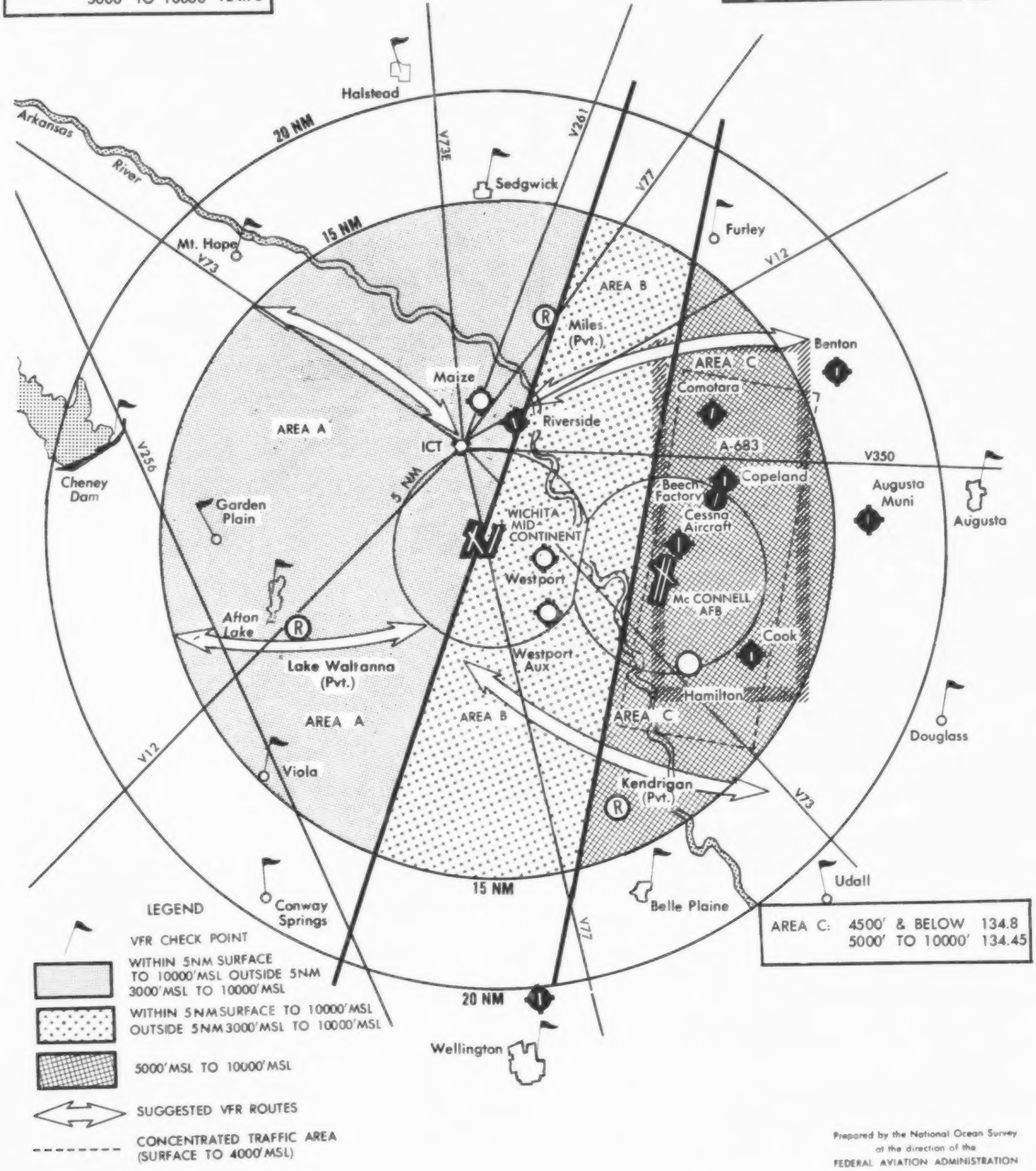
TERMINAL RADAR SERVICE AREA
(NOT TO BE USED FOR NAVIGATION)

WICHITA, KANSAS, WICHITA MID-CONTINENT AIRPORT
FIELD ELEV. 1332′ MSL

AREA A: 4500′ & BELOW 126.7
5000′ TO 10000′ 124.75

AREA B: 4500′ & BELOW 120.6
5000′ TO 10000′ 134.45


Halstead
Arkansas River
20 NM
15 NM
5 NM
V73E
V261
V77
V12
V73
V256
V350
Sedgwick
Furley
Mt. Hope
AREA B
Miles (Pvt.)
Benton
AREA C
Comotara
Maize
Riverside
AREA A
ICT
A-683
Copeland
Augusta Muni
Augusta
Cheney Dam
Garden Plain
Beech Factory
Cessna Aircraft
WICHITA MID-CONTINENT
Westport
Mc CONNELL AFB
Afton Lake
Westport Aux
Cook
Lake Waltanna (Pvt.)
Hamilton
AREA A
AREA B
AREA C
Douglass
Viola
Kendrigan (Pvt.)
Udall
Conway Springs
Belle Plaine
Wellington
20 NM
LEGEND
VFR CHECK POINT
WITHIN 5NM SURFACE TO 10000′MSL OUTSIDE 5NM 3000′MSL TO 10000′MSL
WITHIN 5NM SURFACE TO 10000′MSL OUTSIDE 5NM 3000′MSL TO 10000′MSL
5000′MSL TO 10000′MSL
SUGGESTED VFR ROUTES
CONCENTRATED TRAFFIC AREA (SURFACE TO 4000′MSL)

AREA C: 4500′ & BELOW 134.8
5000′ TO 10000′ 134.45

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10 JUL 1980

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